Donald Benton

3

SELF-HELP

Arithmetic Workbook

FINDLEY
STUDEBAKER
KNIGHT

SCOTT, FORESMAN AND COMPANY

SELF-HELP

Arithmetic Workbook 3

BY W. C. FINDLEY, J. W. STUDEBAKER, AND F. B. KNIGHT

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To the Teacher

Nature of the Workbook

This workbook continues the program of establishing arithmetic foundations and skills begun in the two preceding grades by *Number Stories Workbook 1* and *Number Stories Workbook 2*. While this workbook correlates closely with *Study Arithmetics, Book 3* (see references at the top of each page), the authors have designed the exercises so that they may be used with any textbook or without a textbook.

The authors have planned the lessons on the assumption that the child has had no prior work in the basic facts or computational skills. This automatically assures a very adequate review for those children who have had some previous work in these.

Note especially three important features that will make teaching easier and learning surer. The first of these is the plan used to concrete each basic fact pictorially and to relate it to the abstract example. See pages 16, 18, 92-97, and 108-113 for illustrations of this plan.

The second feature is the four-step learning plan used for each new computational skill. This plan assists the child in acquiring good study habits in arithmetic and develops the ability to learn quantitative skills through reading and study. See pages 36-37, 46-47, and 76-77 for examples of this plan.

The third feature is the provision for the copying of examples. The skill of correct transcription of numbers is important in arithmetic and is usually neglected in workbooks. Note also that adequate provision is made for problem solving.

Contents of the Workbook

This workbook contains interesting exercises that incorporate and reinforce the number ideas listed below.

Numbers: counting and reading numbers to 999, place value of numbers through hundreds, writing numbers to 999, meaning of zero, counting by twos, fives, and tens

Money: *cent, nickel, dime, quarter, half dollar, dollar*, making change in amounts less than one dollar, adding and subtracting amounts of money with sums and minuends less than $10

Measurement: calendar, telling time to 5-minute intervals, *inch, foot, yard, ounce, pound, cupful, pint, quart, gallon, dozen*

Addition: reteaching of basic facts with sums of 10 or less, introduction of basic facts with sums of 11 to 18, addition through skills involved in adding three columns of three digits each with double carrying, zero in addition

Subtraction: reteaching of basic facts with minuends of 10 or less, introduction of basic facts with minuends of 11 to 18, subtraction through skills involved in subtracting a three-digit number from a three-digit number with double borrowing, zero in subtraction

Multiplication: introduction of meaning of process, introduction of basic facts with 2 and 3 as multiplier and multiplicand, multiplication through skills involved in multiplying three-digit numbers with only one carrying situation, zero in multiplication

Division: introduction of meaning of process, introduction of basic facts with 2 and 3 as divisor and quotient, division through skills involving two-digit quotients without final remainders, zero in division

Fractions: $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$ of a unit; $\frac{1}{2}$ and $\frac{1}{3}$ of a quantity

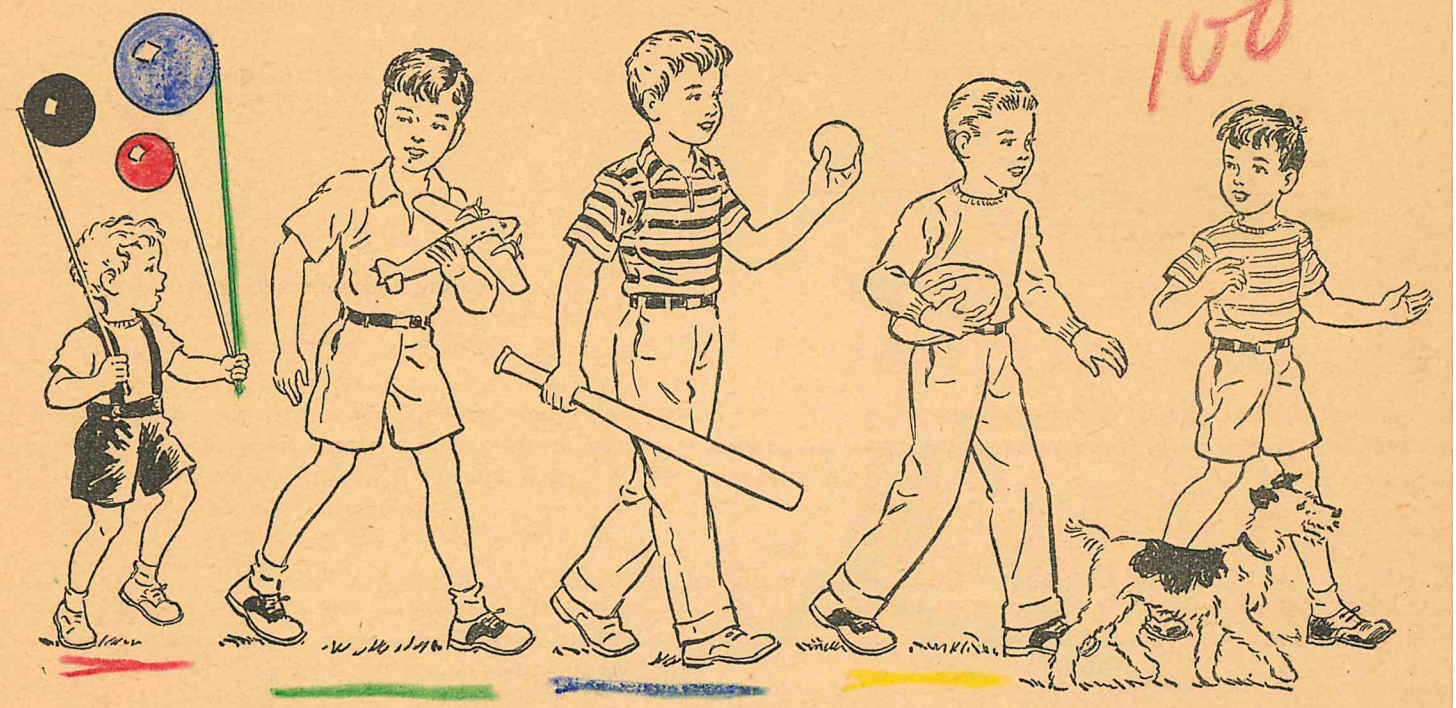
The Lesson Directions

In so far as possible the directions in this workbook are worded so that they may be read and comprehended by children who have completed the second year of their reader series. But the teacher should always be sure that the children know what they are to do before she permits them to work an exercise.

Vocabulary of the Workbook

This workbook has been prepared with the same careful attention to vocabulary that was given to *Study Arithmetics, Book 3*. The only assumed vocabulary is that of *Number Stories, Book 1* and *Number Stories, Book 2*, and, as the child progresses from exercise to exercise, *Study Arithmetics, Book 3*.

(*Continued on inside back cover*)



Bobby and his friends are hurrying to Tom's yard to play. They are taking with them some of their toys and pets. Bobby and Bingo are showing the way. Bobby is the first boy.

Joe is the second boy. Put a yellow line under him.

Tom is the third boy. Put a blue line under Tom.

Jack is fourth. Put a green line under Jack.

Find the fifth boy. His name is Jerry. Put a red line under Jerry.

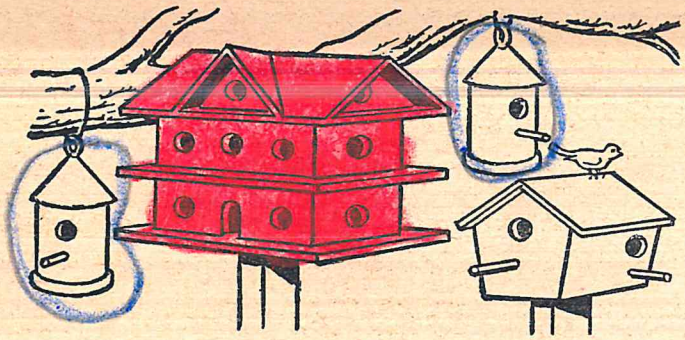
Jerry has some balloons. Color the biggest balloon blue.

Find the balloon that is not as big as the black balloon. Color it red.

Find the balloon that is bigger than the black balloon. Color the stick on the bigger balloon green.

Make a ring around **Yes** or **No** to answer each question:

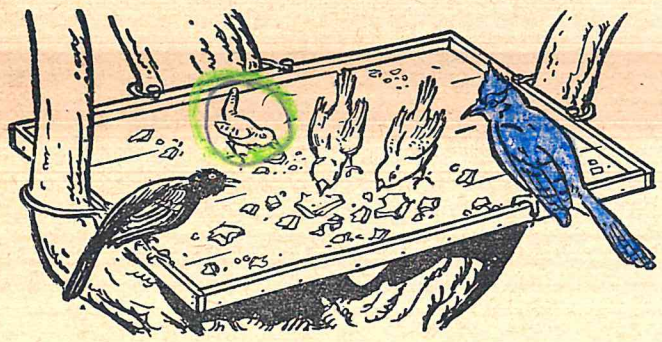
Is the second boy bigger than the third boy?	**Yes**	**No**
Is the boy with the balloons the biggest boy?	**Yes**	**No**
Is the first boy as big as the fourth boy?	**Yes**	**No**
Is the second boy bigger than the fifth boy?	**Yes**	**No**



Bobby and his friends made these four bird houses. They made one bird house larger than the others.

Find the largest bird house and color it red.

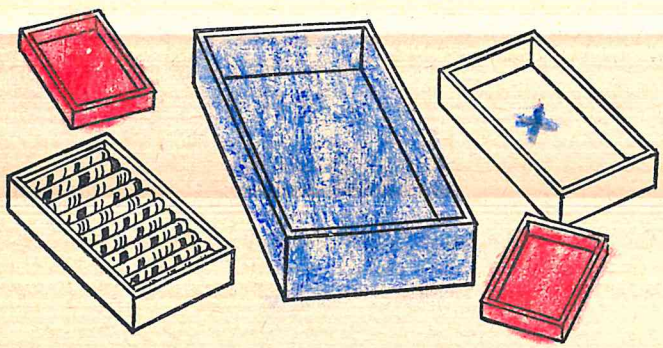
Make a ring around each bird house that is smaller than the one with a bird on it.



Here are some birds that the boys saw on the feeding table one day.

Find the bird that is larger than the black bird. Color it blue.

Make a ring around the smallest of the five birds.

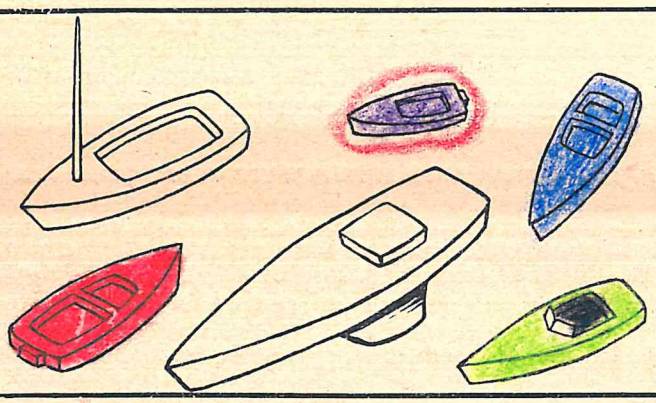


Jack had some boxes to put candy in for his party.

Color the largest box blue.

Color the two smallest boxes red.

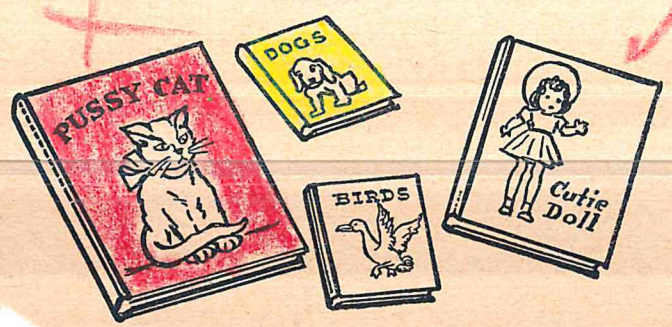
Make an X on the box that is as large as the box that has candy in it.



Here are some toy boats that the boys were going to use in a boat race.

Color the boats that are smaller than the boat with a mast.

Make a ring around the smallest of the six boats.

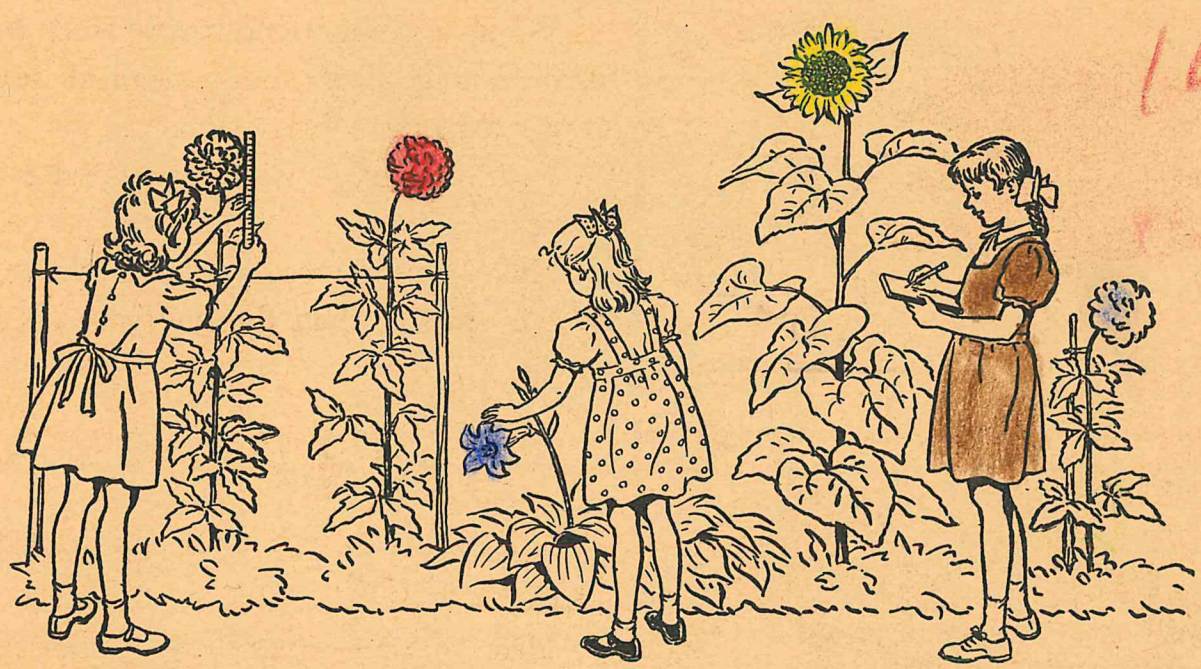


Here are two large books and two small books.

Color the large books red.

Color the small books yellow.

Make an X on the book that is larger than the book with the doll on it.

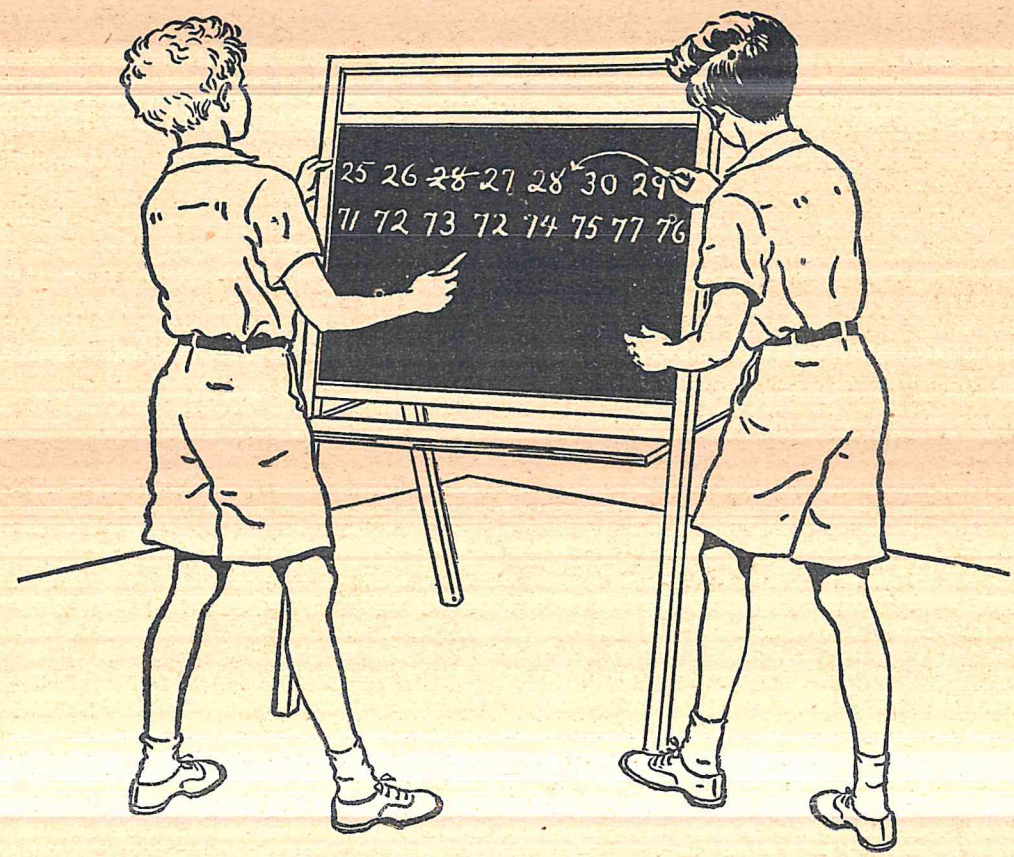


In the back yard of Nancy's house are some tall flowers. Some of the flowers are taller than the girls. Betty, Nancy, and Jane are measuring the flowers to see how tall they are. Betty is measuring the **first** flower.

1. Find the flower that is just as tall as the first flower. Color it red.
2. Color the tallest flower yellow.
3. Color the shortest flower blue.
4. One girl is taller than the girl that has a ruler in her hand. Color this taller girl's dress brown.

Make a ring around **Yes** or **No** to answer the questions:

5. Nancy is the shortest girl in the picture. Is her hand on the shortest flower? **Yes** **No**
6. Is the tallest girl measuring the flower that is just as tall as the red flower? **Yes** **No**
7. Is the second flower shorter than the fifth flower? **Yes** **No**
8. Is the girl with the paper and pencil as short as the girl with the ruler? **Yes** **No**
9. Is the girl with the ruler taller than the second girl? **Yes** **No**
10. Is the shortest girl taller than the shortest flower? **Yes** **No**
11. Is the tallest girl just as tall as the tallest flower? **Yes** **No**



Henry has written two long rows of numbers on the blackboard.

Some of his numbers are not right. So Jack is making them right.

He crossed out the first 28 to show that it is not needed.

Then Jack made an arrow to show where the 29 should be.

Now look at the second row. Find the number that is not needed.

Jack should cross out 72 after 73 in this row.

Look at the second row again. Find the number that Henry did not put in the right place.

Jack should make an arrow to show that 76 should be between ____ and ____.

Look at the numbers in Row A below. Cross out each number that is not needed.

If any number is not where it should be, make an arrow to show where it should be.

Do this for each of the other rows.

Row A	40	41	~~40~~	42	43	45	44	47	46	48
Row B	84	85	86	88	87	~~85~~	90	89	91	~~90~~
Row C	98	99	100	~~98~~	101	102	104	103	105	106
Row D	257	258	260	259	~~257~~	261	262	265	264	263

Row A | 100 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 |

Row B | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 |

Row C | 850 | 860 | 870 | 880 | 890 | 990 | 910 | 920 | 930 | 940 |

Jack has put these number cards in rows. He has turned some of them so that you cannot see the numbers.

Look at Row A. It shows the numbers that you say when you count by tens. The card between 110 and 130 should have 120 on it. Write 120 on the card.

Now write the missing numbers on the other three cards in Row A.

The cards in Row B show the numbers you say when you count by hundreds. Write on these cards any numbers that are missing.

The cards in Row C show the numbers you say when you count by 10. Write on these cards any numbers that are missing.

Now look at Rows D, E, and F below. In each row only two of the cards have numbers on them.

You are to write on the other cards the numbers that are missing. In each row decide whether you should write the numbers that you say when you count by ones, tens, or hundreds.

Row D | 587 | 588 | 589 | 599 | 590 | 591 | 592 | 593 | 594 | 595 |

Row E | 240 | 250 | 260 | 270 | 280 | 290 | 300 | 310 | 320 | 330 |

Row F | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 |

50

Here are some other number cards that Jack had. Each card should have three numbers on it. But one of the numbers is missing from each card.

Look at Card G. 84 should be between 83 and 85. Write 84 where it should be.

Now look at each of the other cards. Decide what number is missing. Then write the number where it should be on the card.

G 83 84 85	H 129 130 131	I 230 231 232
J 540 541 542	K 70 80 90	L 140 150 160
M 300 400 500	N 700 800 900	O 899 900 901

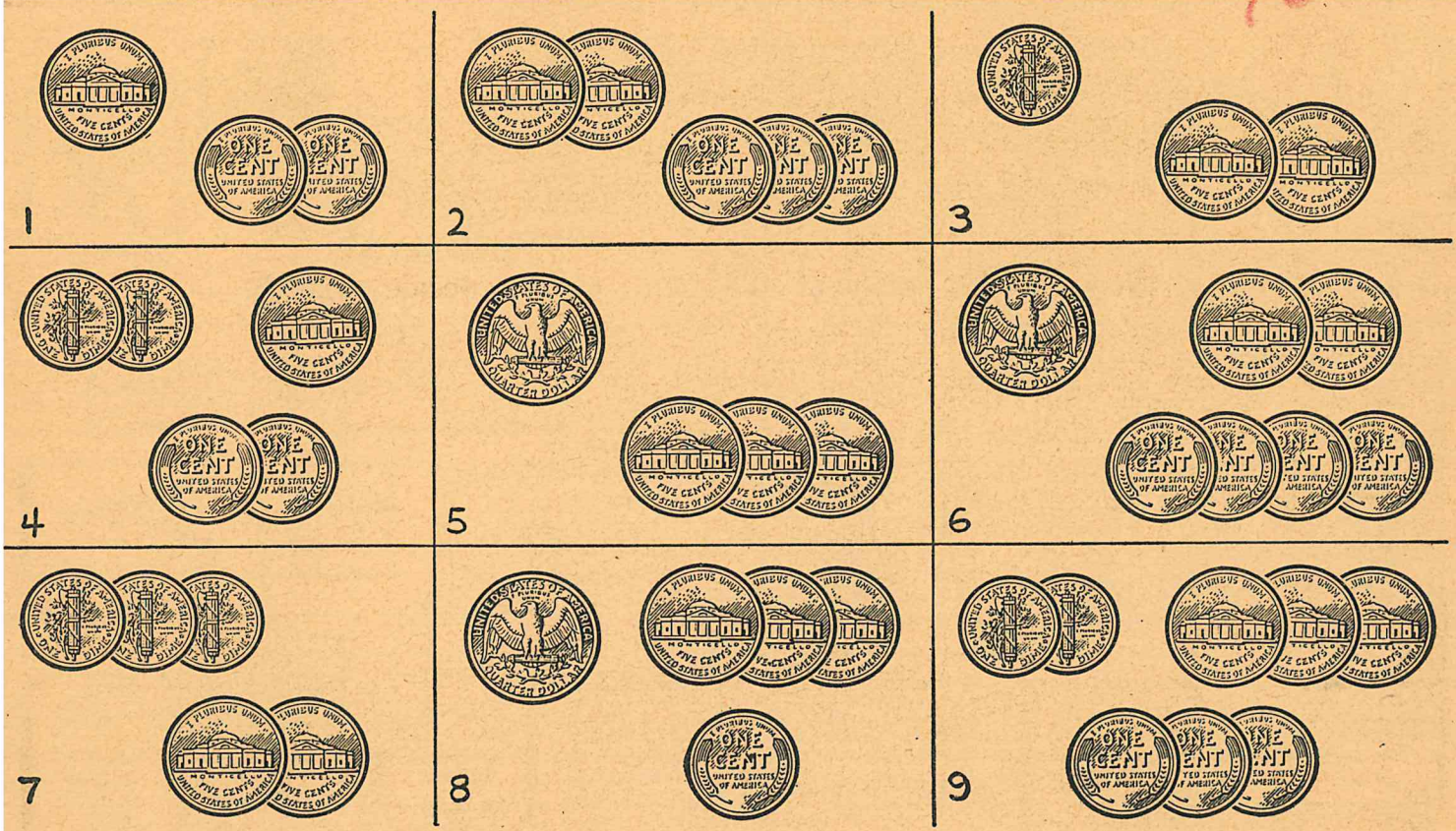
Bobby counted some apples by twos. Counting by twos is faster than counting by ones. Some of the numbers that he said in counting the apples are written below. Some of the numbers are missing. Write the missing numbers where they should be.

2 4 6 8 10 12 14 16 18 20

Now look at the cards in Row P below. Decide whether they show numbers that you say when you count by twos, fives, or tens. Then write the missing numbers.

Write the numbers that are missing from Rows Q and R.

Row P	430	432	434	436	438	450	452	454	456	458
Row Q	600	605	610	615	620	625	630	635	640	645
Row R	900	910	920	930	940	950	960	970	980	990



1. Picture 1 shows the money Jane earned in one week. The nickel is as much as 5 cents. 1 penny more makes 6 cents. Another penny makes 7 cents. Count the money this way: "5 cents, 6 cents, 7 cents."

2. Picture 2 shows the money she earned the second week. Look at the numbers below. Some of the numbers you should say in counting this money are missing. Write the missing numbers.

5 cents, 10 cents, 11 cents, 12 cents, 13 cents

3. Write the numbers you should say in counting the money in Picture 3.

10 cents, 15 cents, 20 cents

4. Write the numbers you should say in counting the money in Picture 4.

10 cents, 20 cents, 25 cents, 26 cents, 27 cents

5. Write the numbers you should say in counting the money in Picture 5.

25 cents, 30 cents, 35 cents, 40 cents

6. Write the numbers you should say in counting the money in Picture 6.

25 cents, 30 cents, 35 cents, 36 cents, 37 cents, 38 cents, 39 cents

7. Write the numbers you should say in counting the money in Picture 7.

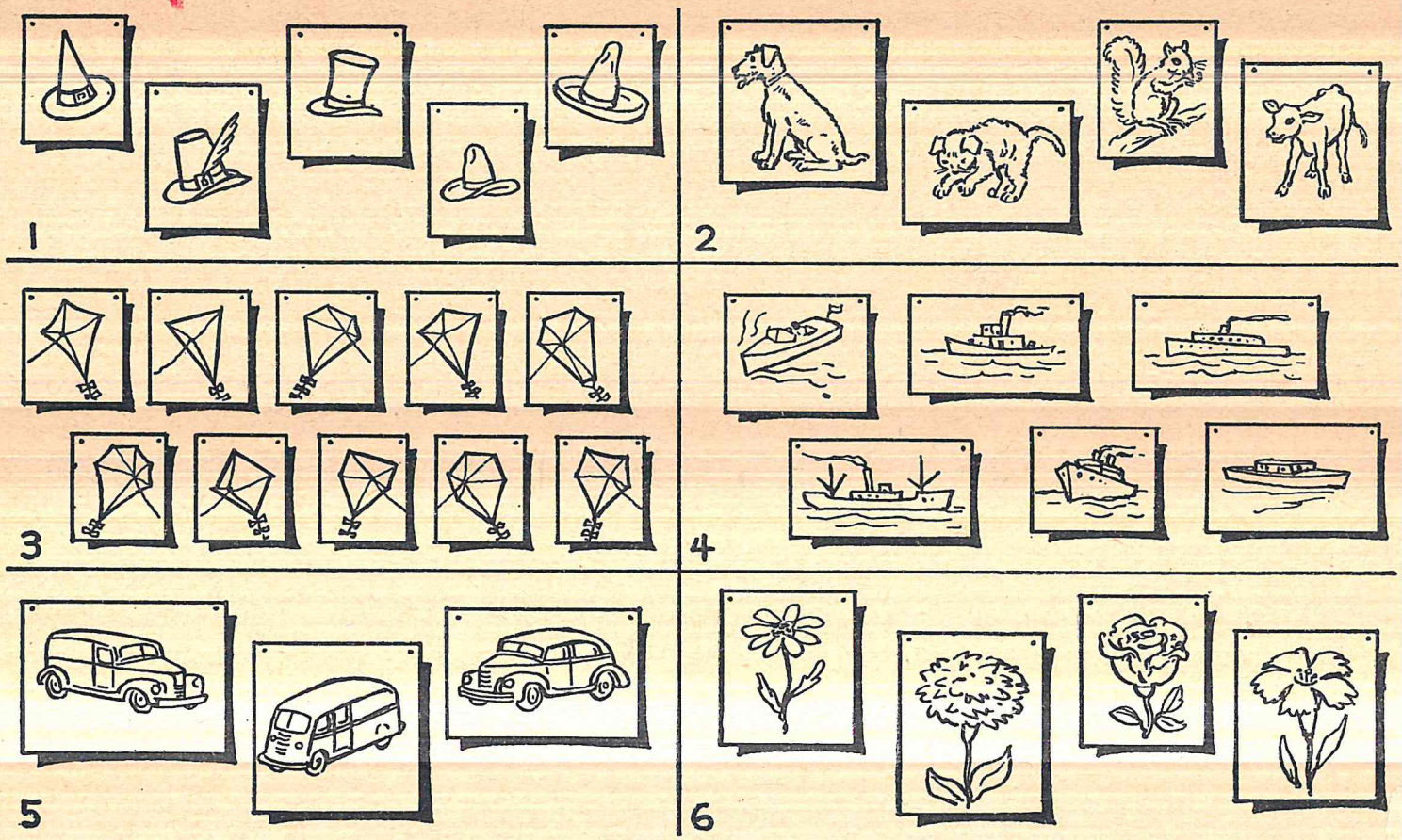
10 cents, 20 cents, 30 cents, 35 cents, 40 cents

8. Write the numbers you should say in counting the money in Picture 8.

25 cents, 30 cents, 35 cents, 40 cents, 41 cents

9. How much money does Picture 9. show? The answer is 35 cents.

This exercise may be used after pages 18-20, Number Stories (Study Arithmetics), Book 3

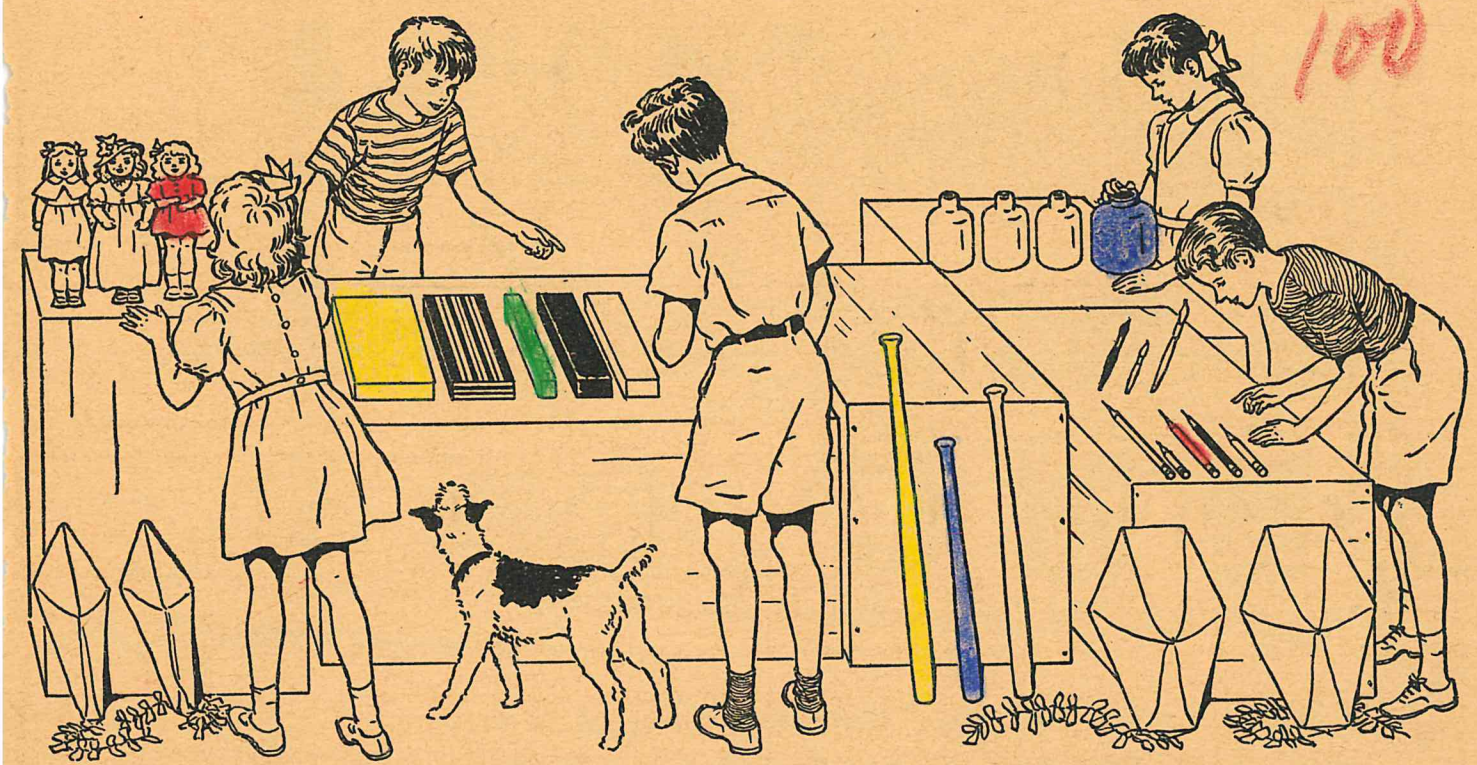


The boys and girls in Nancy's room have a bulletin board. On this bulletin board they put pictures of things they like.

The pictures of the hats are at the **upper left** on the bulletin board. The pictures of the flowers are at the **lower right.**

Make a ring around **Yes** or **No** to answer the questions:

1.	Are the pictures of the kites and boats in the middle row?	**Yes**	**No**
2.	Are the pictures of the hats at the upper left?	**Yes**	**No**
3.	Are the pictures of the flowers at the lower left?	**Yes**	**No**
4.	Are more pictures at the upper left than at the upper right?	**Yes**	**No**
5.	Are more pictures in the bottom row than in the top row?	**Yes**	**No**
6.	Are the pictures of the toy cars in the middle row?	**Yes**	**No**
7.	Are more pictures in the middle row than in the bottom row?	**Yes**	**No**
8.	Are the pictures of the kites in the top row?	**Yes**	**No**
9.	Are there 18 pictures in the middle row?	**Yes**	**No**
10.	Are there 4 pictures at the lower right?	**Yes**	**No**
11.	Are there 3 pictures at the upper left?	**Yes**	**No**



Bobby and Betty and their friends are playing store. They have made their store of old boxes. Look at the picture to see the things they have in their store. Bobby is the store man.

1. Joe wants to buy the longest bat. Color that bat yellow.

2. Find the pencil that is just as long as the black pencil. Color it red.

3. Color the shortest bat blue.

4. Jane saw some wide bottles that she could put flowers in. She bought the widest bottle. Color it blue.

5. Jack wants to buy a narrow box for his paintbrushes. Color the narrowest box green.

6. One box has candy in it. It is wider than the box with lines on it. Color the candy box yellow.

7. Find the doll with the shortest dress. Color its dress red.

8. Are the bats longer than the pencils? Write **Yes** or **No.** yes

9. Are the kites at the lower right of the picture narrower than the kites at the lower left? NO

10. The first paintbrush is black. Is the second paintbrush shorter than the first paintbrush? Yes

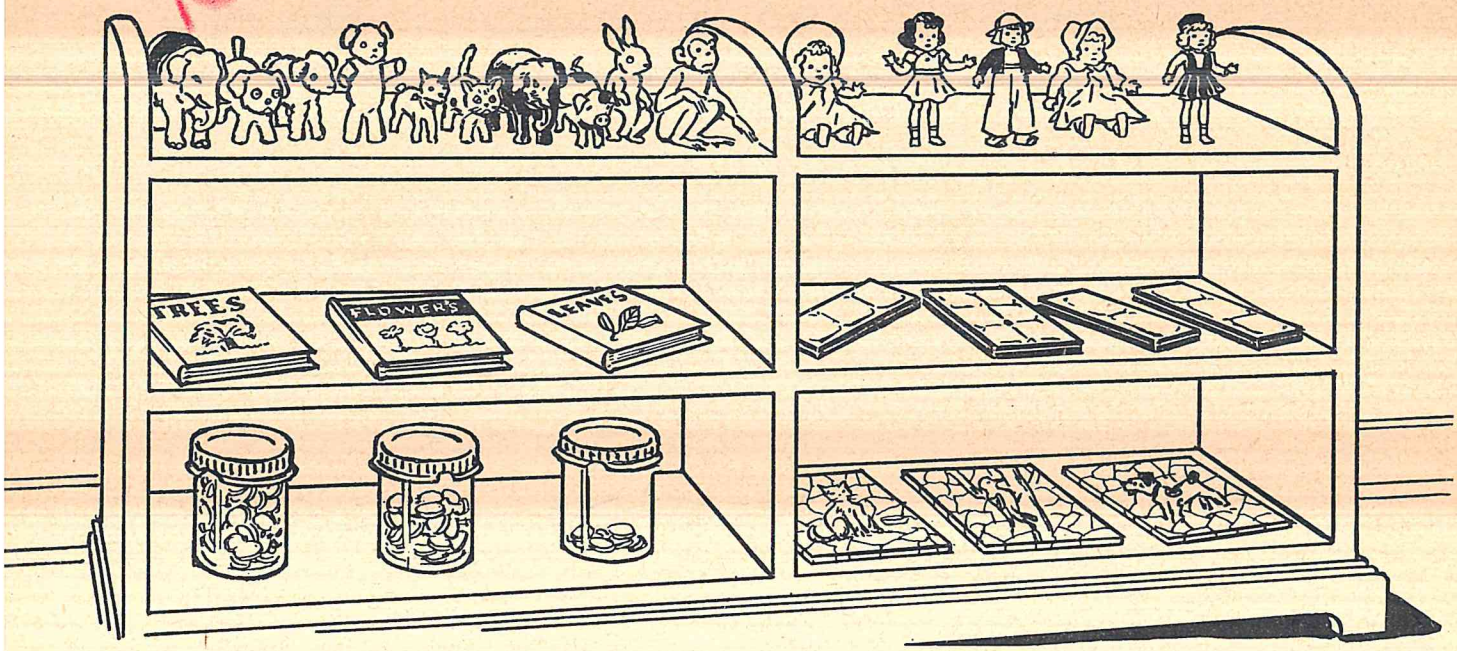
11. Is the third paintbrush as short as the first paintbrush? NO

12. Betty gave Bobby 3 nickels and 2 pennies for the doll with the longest dress. Does this doll have a hat? yes

13. Did Betty give 22¢ for it? NO

14. Jack bought the kite at the lower right. Did Jack buy a wide kite? Yes

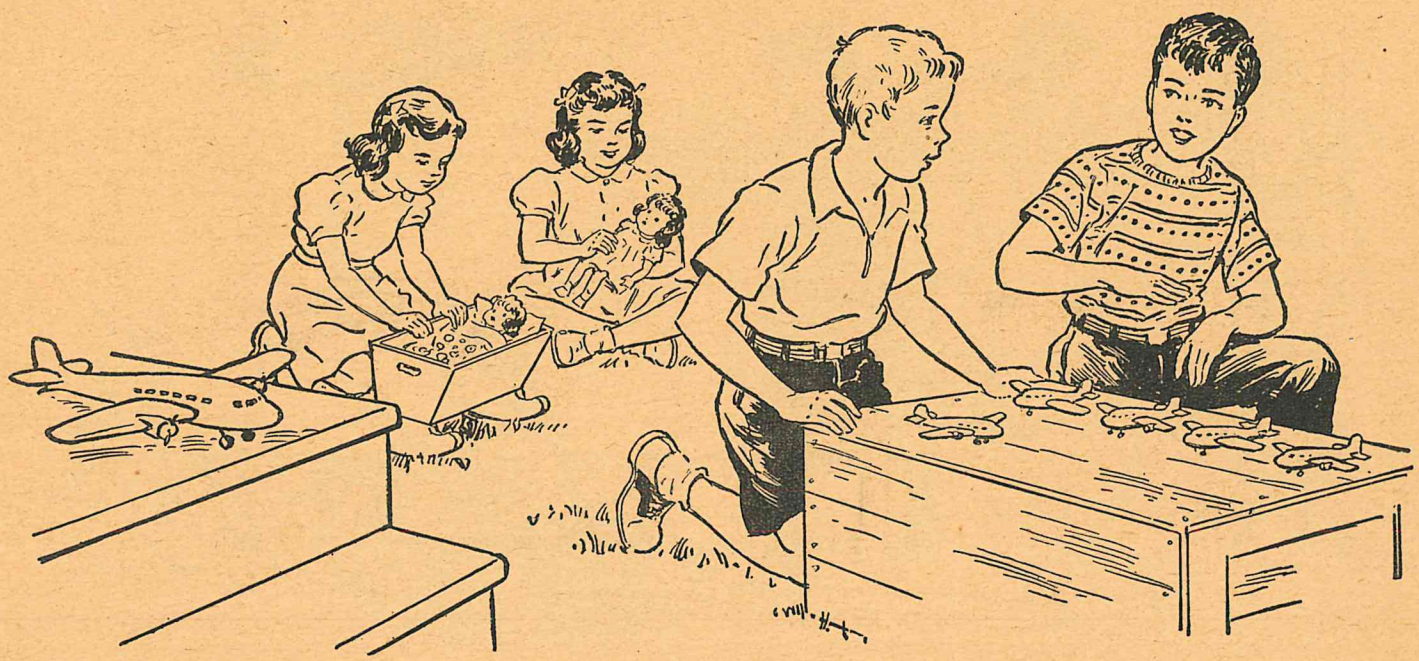
This exercise may be used after pages 18-20, Number Stories (Study Arithmetics), Book 3



Here are some things the children brought to school to give away. Some of the boys and girls brought toys or books, and some brought pennies.

Write **Yes** or **No** on the line after each question:

1. Are there more toy animals than jars? yes
2. There are six things on the bottom shelves. Are there more than six things on the top shelves? yes
3. Are there just as many puzzles as there are books? yes
4. Are the most things on the upper left shelf? yes
5. Are there more things on the middle shelves than there are on the upper right shelf? yes
6. Are there more paintboxes than toy animals? yes
7. Is there less money in the jar of pennies at the left than in the jar of pennies at the right? no
8. Are there fewer jars of money than there are dolls? yes
9. Are there just as many things on the three shelves at the left as there are on the three shelves at the right? No
10. Are there fewer puzzles than dolls? yes
11. Is there less money in the middle jar than in the jar on the right? No
12. Is there more money in the middle jar than in the one on the left? No



This picture shows Jack and his friends playing with their toys one Saturday. Look at the picture and read the questions. Then write the numbers on the short lines.

How many children are in the picture? 4
How many girls are in the picture? 2
How many boys are in the picture? 2

2 children and 2 children are 4 children.

Here is another way to write "2 children and 2 children are 4 children." →

A
2 children
+2 children
4 children

The sign before the 2 tells you to **add.** Say **and** when you read this sign.

2 + 2 means 2 and 2. 2 + 2 are 4.

How many airplanes are in the picture? 6
How many airplanes are on the step? 1
How many airplanes are on the box? 5

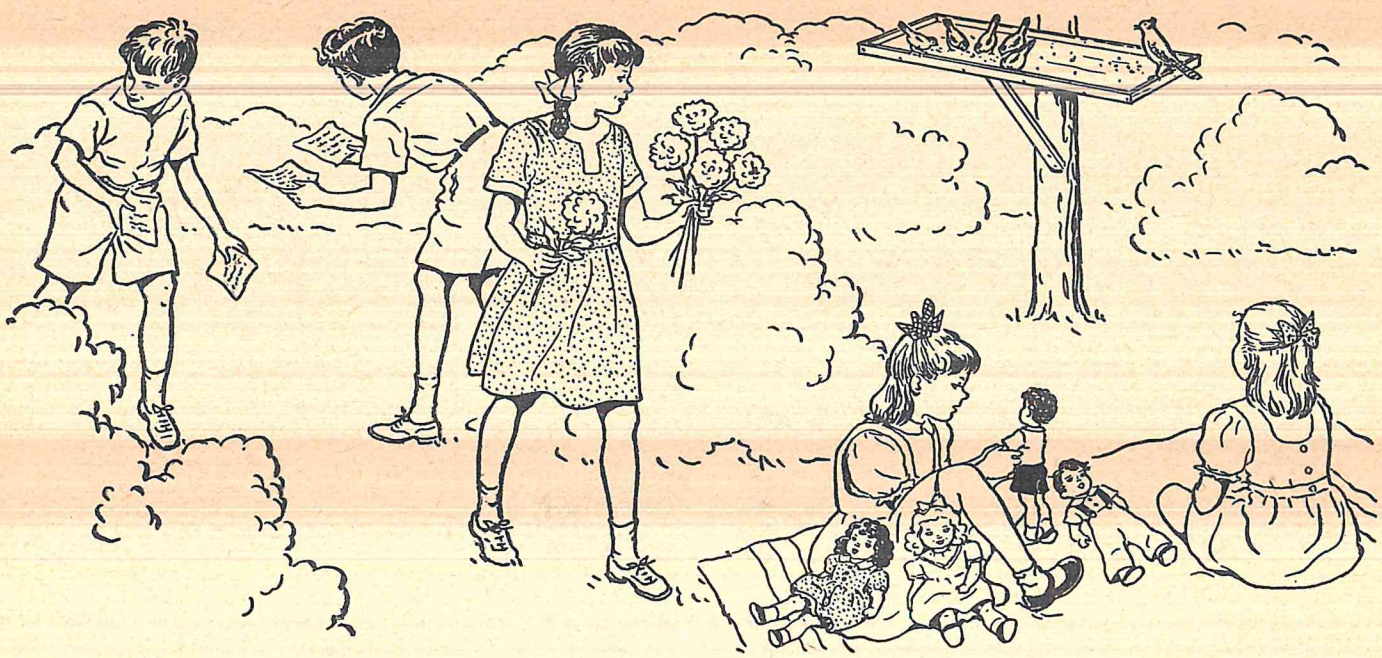
5 airplanes and 1 airplane are 6 airplanes. 5 + 1 are 6.
1 airplane and 5 airplanes are 6 airplanes. 1 + 5 are 6.

Example B shows another way to write 5 airplanes and 1 airplane are 6 airplanes.

B
1 airplane
+5 airplanes
6 airplanes

Example C shows how to write 1 and 5 are 6.

C
5
+1
6



Read this number story.

1. Mary had 2 boy dolls and 2 girl dolls to play with in the yard. How many dolls did she have in all? The picture will help you get the answer.

To find out how many dolls she had, think, "2 dolls and 2 dolls are 4 dolls."

You **add** 2 dolls and 2 dolls.

Look at Examples A, B, and C below. Example 4 shows the answer.

Now read the next number story.

2. Nancy saw some birds on the new feeding table. She saw 1 big bird and 5 little birds. How many birds in all did she see?

Look at the picture to see if it will help you find how many birds she saw.

Look at Examples A, B, and C. Find an example that shows the answer. Write the example here.→

Nancy saw 6 birds.

B
1
+5
6

3. Jane went out to the yard to get some flowers. She has 5 flowers in her left hand and 1 flower in her right hand. How many flowers in all does she have?

Look at the picture.

Look at Examples A, B, and C. Write an example that shows the answer.→

She has 6 flowers.

C
5
+1
6

4. Jack and Bobby are having a big treasure hunt. Jack has found 2 notes, and Bobby has found 2 notes. In all how many notes did the boys find?

Look at the picture.

Look at the examples.

Write the example that shows the answer. →

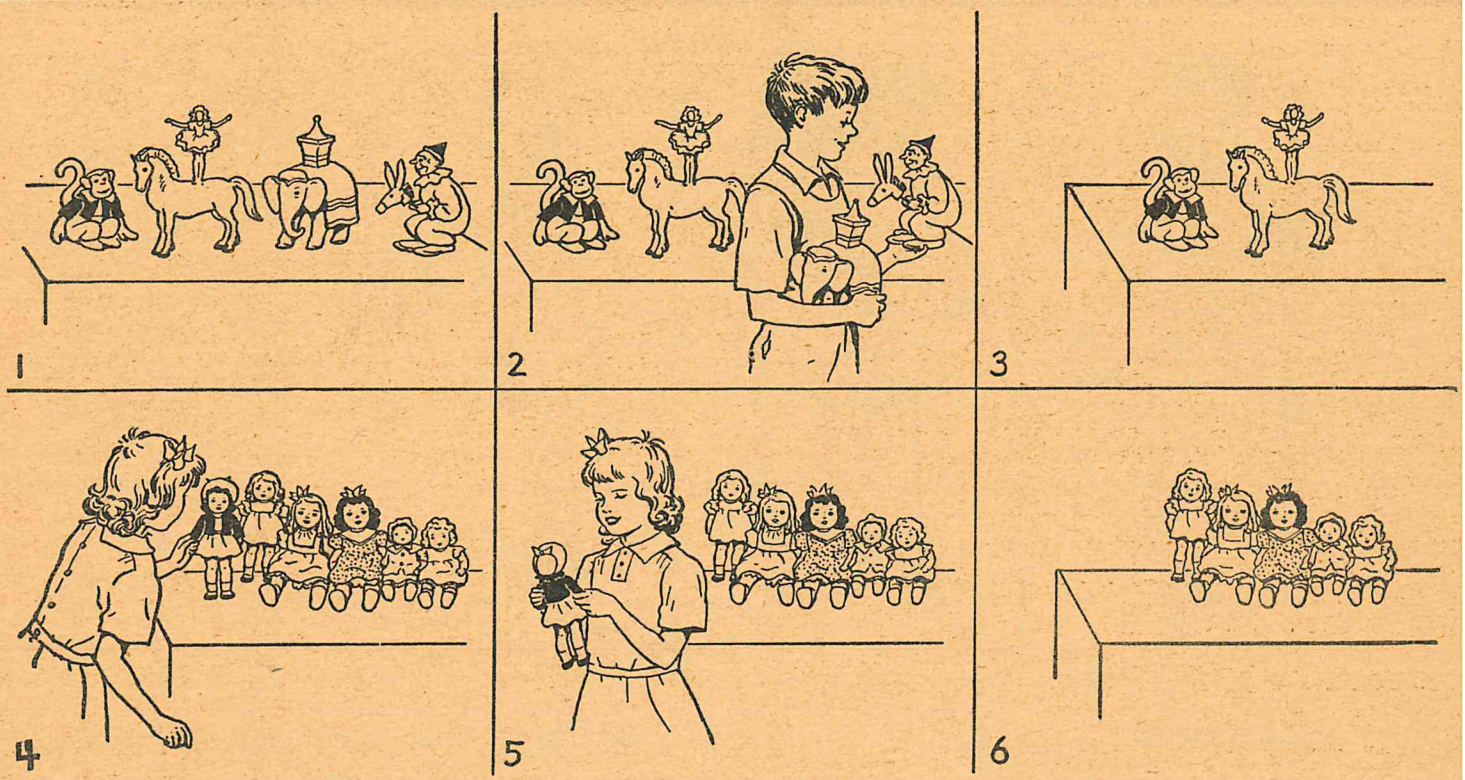
They found 4 notes.

A
2
+2
4

A
2
+2
4

B
1
+5
6

C
5
+1
6



Look at Pictures 1, 2, and 3 and read the questions below. Then write the numbers on the short lines.

How many toys did Bobby see on the shelf? 4
How many of the toys is he taking away? 2
How many toys are left on the shelf? 2

2 toys from 4 toys are 2 toys. 2 from 4 is 2.

Example A shows one way to write "2 toys from 4 toys are 2 toys."

The short line before the 2 shows that you are to **subtract.**

A

4 toys
-2 toys
2 toys

Now look at Pictures 4, 5, and 6.

How many dolls are there in Picture 4? 6
How many dolls is Betty taking away? 1
How many dolls are left? 5

1 doll from 6 dolls is 5 dolls. 1 from 6 is 5.

Example B shows one way to write 6 doll from 1 dolls is 5 dolls.

Example C shows how to write 6 from 1 is 5.

B

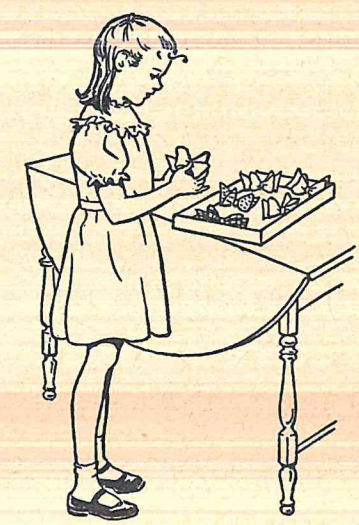
6 dolls
-1 doll
5 dolls

C

6
-1
5

1

2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Read Problem 1.

1. There were 4 puzzles on the table. Joe took 2 of them away. How many puzzles were left? Picture 1 will help you get the answer.

To find how many puzzles Joe left on the table, think, "2 puzzles from 4 puzzles are 2 puzzles."

You **subtract** 2 puzzles from 4 puzzles.

Example a at the lower right shows the answer.

Now read Problem 2.

2. Jane had 6 records. She gave Mary 1 of them. How many records did Jane have left?

Look at Picture 2 to see if it will help you answer the question.

Look at Examples A, B, and C. Find the example that shows the answer. Write the example here. ⟶

Jane had 5 records left.

B
6
−1
5

3. Nancy had 6 ribbons. She put 5 of them in a box. How many ribbons were left in her hand?

Look at Picture 3.

Look at the examples below. Write the example that shows the answer.

The answer is 1 ribbon.

c
6
−5
1

4. Bobby had a box into which he put 4 pennies. Then he took 2 pennies out of the box. How many pennies did he have left in the box?

Look at Picture 4.

Look at the examples.

Copy the example that shows the answer.

Bobby had 2 pennies left in the box.

a
4
−2
2

A
4
−2
2

B
6
−1
5

C
6
−5
1

Here are six number stories or problems. Read Problem 1.

1. Betty made some red dresses and some blue dresses for her dolls. She made 2 red dresses and 2 blue dresses. How many dresses in all did she make?

Decide whether you should **add** or **subtract** to get the answer to the question.

Then write the example in Box 1. Be sure to put + or — in your example. Write the answer.

The answer is 4 doll dresses.

1
2
+2
4

2. Henry took 1 book about animals to school last week. This week Henry took 5 more books about animals to school. How many books about animals did Henry take to school in both weeks?

Write the example in Box 2. The answer is 6 books.

2
1
+5
6

3. The store man had 6 jars of honey in the store. He sold 1 jar of honey to Nancy's mother. How many jars of honey did he have left in the store then?

Write the example in Box 3. The answer is 5 jars.

3
6
−1
5

4. Jane had 5 apples to give to the children at her party. Betty brought Jane 1 more apple. In all Jane had how many apples for her party?

Write the example in Box 4. The answer is 6 apples.

4
5
+1
6

5. Henry had 6 jars of paint at school. He gave 5 of them to Joe to use. How many jars of paint did Henry have left?

Write the example in Box 5. The answer is 1 jar.

5
6
−5
1

6. Nancy had 4 pennies to spend for candy. She gave 2 of the pennies to Jane. How many pennies did Nancy have left to spend for candy?

Write the example in Box 6. The answer is 2 pennies.

6
4
−2
2

Write the answers for the examples below.

2 + 2 are 4.

2 from 4 is 2.

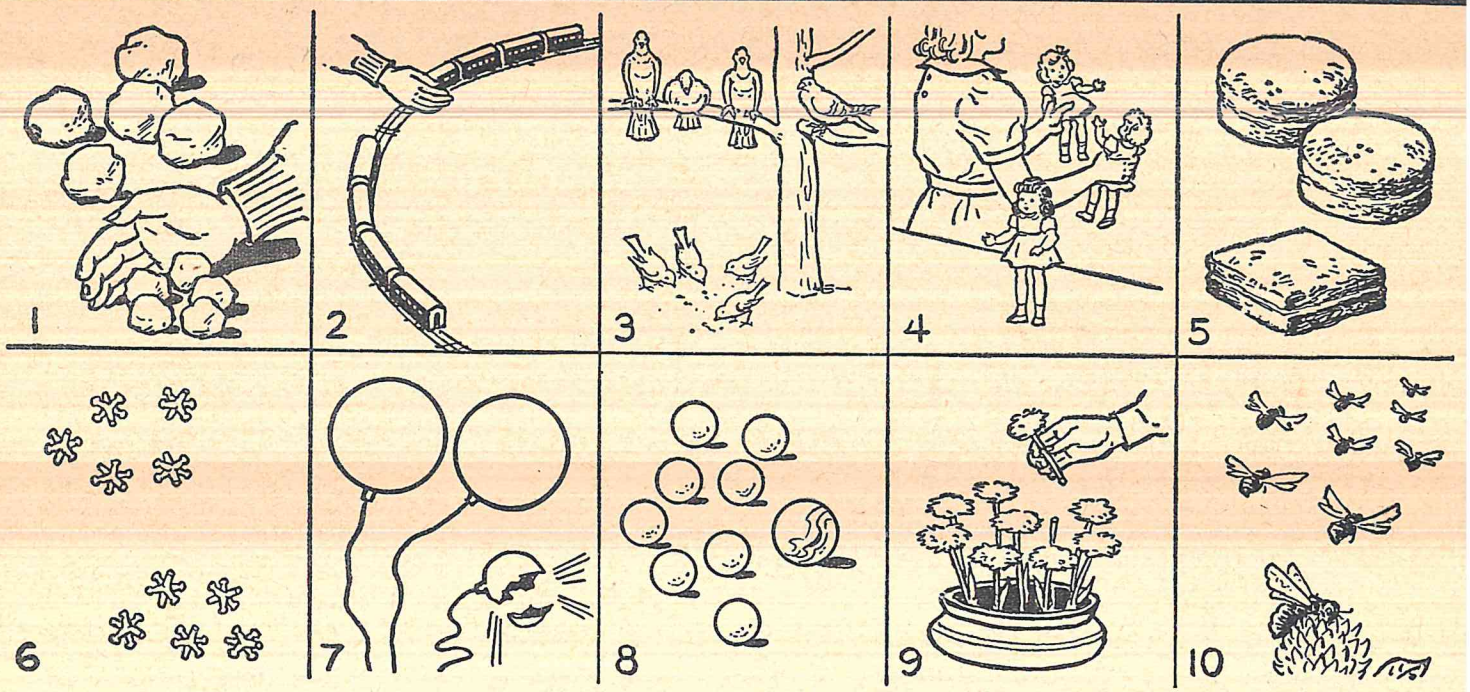
1 from 6 is 5.

5 from 6 is 1.

5 + 1 are 6.

1 + 5 are 6.

2	6	1	4	6	5
+2	−5	+5	−2	−1	+1
4	1	6	2	5	6



1. At the zoo Betty saw a cage with 4 large birds and 4 small birds in it. How many birds were in the cage?

Picture 3 goes with this problem.

Example A below goes with this problem. The answer is 8 birds.

2. Mary bought 2 round cakes and 1 square cake. How many cakes in all did she buy?

Picture 5 goes with this problem.

Examples B and C go with this problem. The answer is 3 cakes.

3. Jack made a pile with 10 rocks in it. His brother took 5 of the rocks away. How many rocks were left in the pile?

Picture 1 and Example L go with Problem 3. The answer is 5 rocks.

Example A goes with Picture 3. So a 3 is written under Example A.

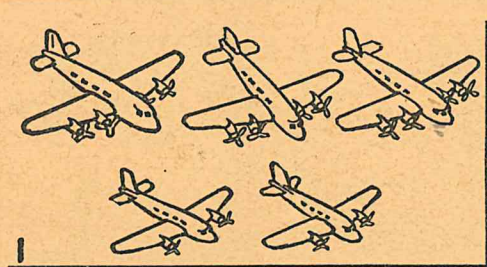
Examples B and C go with Picture 5. So write 5 under Examples B and C.

Write a number under each of the other examples to show which picture goes with it.

A	B	C	D	E	F	G	H	I	J	K	L
4 +4 = 8	1 +2 = 3	2 +1 = 3	1 +8 = 9	8 +1 = 9	5 +5 = 10	8 −4 = 4	3 −2 = 1	3 −1 = 2	9 −8 = 1	9 −1 = 8	10 −5 = 5
3	5	5	8	8	6	2	4	7	10	9	1

Learn the examples above. Then write the answers to the examples below.

1 +2 = 3	5 +5 = 10	2 +2 = 4	3 −1 = 2	4 +4 = 8	1 +8 = 9	10 −5 = 5	9 −8 = 1	1 +5 = 6
4 −2 = 2	5 +1 = 6	8 −4 = 4	6 −5 = 1	3 −2 = 1	9 −1 = 8	2 +1 = 3	8 +1 = 9	6 −1 = 5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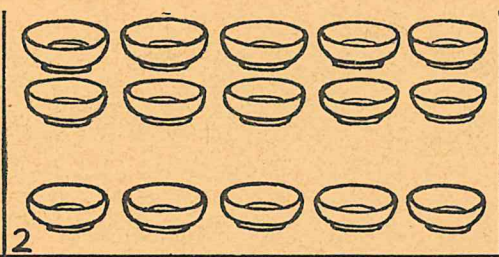
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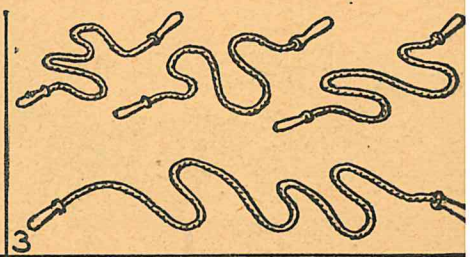
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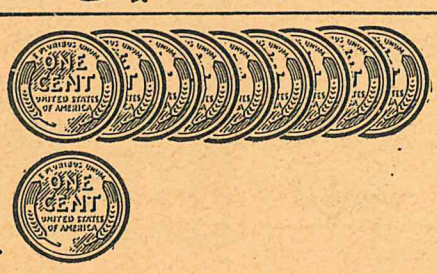

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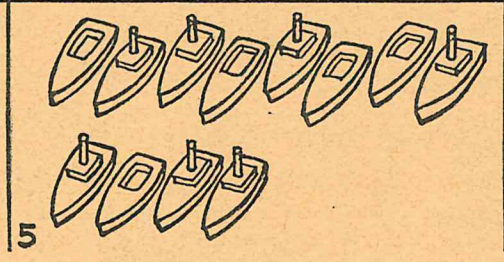
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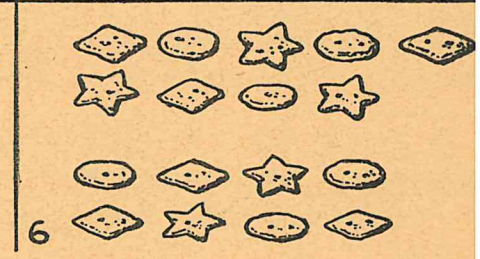

6

1. Jack has 3 large toy airplanes. Tom has 2 small toy airplanes. How many more airplanes does Jack have than Tom? Look at Picture 1.

To find how many more airplanes Jack has than Tom, think, "2 airplanes from 3 airplanes are 1 airplane."

You **subtract** 2 airplanes from 3 airplanes. The answer is 1 airplane.

To find how many more, subtract.

2. Mary had 10 bowls for candy, and Sally had 5 bowls for candy. How many more bowls did Mary have than Sally?

To get the answer, think, "5 from 10 is 5." Write the example here. ⟶

$$\begin{array}{r} 10 \\ -5 \\ \hline 5 \end{array}$$

Mary had 5 more bowls than Sally.

3. Nancy has 3 jumping ropes. Jane has only 1 jumping rope. How many more jumping ropes does Nancy have than Jane?

Write the example that shows the answer here. ⟶

$$\begin{array}{r} 3 \\ -1 \\ \hline 2 \end{array}$$

Nancy has 2 more ropes than Jane.

4. Last week Jack saved 9 pennies. This week he saved 1 penny. How many more pennies did he save last week than this week?

Write the example that shows the answer here. ⟶

$$\begin{array}{r} 9 \\ -1 \\ \hline 8 \end{array}$$

Jack saved 8 more pennies last week.

5. Bobby painted 8 toy boats, and Joe painted 4 boats. How many more boats did Bobby paint that Joe?

Write the example that shows the answer here. ⟶

$$\begin{array}{r} 8 \\ -4 \\ \hline 4 \end{array}$$

Bobby painted 4 more boats than Joe.

6. Sally made 9 cookies, and Nancy made 8 cookies. How many more cookies did Sally make than Nancy?

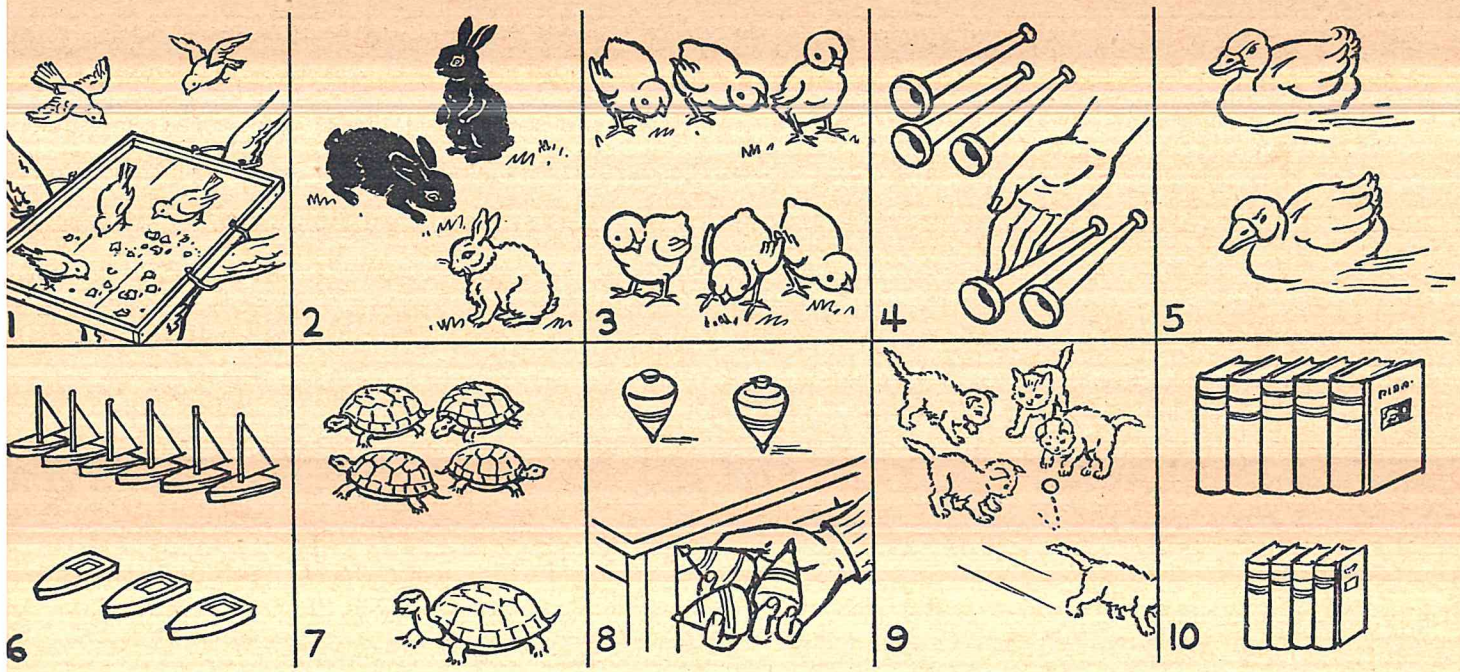
Write the example that shows the answer here. ⟶

$$\begin{array}{r} 9 \\ -8 \\ \hline 1 \end{array}$$

Sally made 1 more cooky than Nancy.

Subtract in each example below.

$\begin{array}{r} 8 \\ -4 \\ \hline 4 \end{array}$	$\begin{array}{r} 9 \\ -8 \\ \hline 1 \end{array}$	$\begin{array}{r} 10 \\ -5 \\ \hline 5 \end{array}$	$\begin{array}{r} 9 \\ -1 \\ \hline 8 \end{array}$	$\begin{array}{r} 3 \\ -2 \\ \hline 1 \end{array}$



1. Joe saw 2 black rabbits and 1 white rabbit. How many more black rabbits than white rabbits did he see?

Picture 2 goes with this problem. Example I below shows the answer. The answer is 1 rabbit.

2. 3 birds were on the feeding table. Soon 2 more birds came. How many birds were on the feeding table then?

Picture 1 goes with Problem 2. Examples a and B go with this problem. The answer is 5 birds.

3. Bobby had 5 tops. He gave 3 of them away. How many tops did he have left?

Picture 8 and Example b go with Problem 3.

The answer is 2 tops.

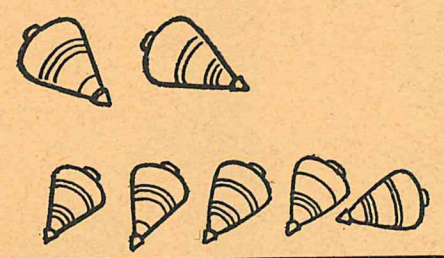
Example A and Example B below go with Picture 1. So a 1 is written under Example A and under Example B.

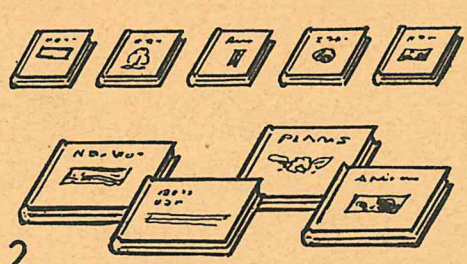
Write a number under each of the other examples to show which picture goes with it.

A	B	C	D	E	F	G	H	I	J	K	L
3 +2 = 5	2 +3 = 5	1 +1 = 2	3 +3 = 6	4 +1 = 5	1 +4 = 5	5 −2 = 3	5 −3 = 2	2 −1 = 1	6 −3 = 3	5 −1 = 4	5 −4 = 1
1	1	5	3	9	7	4	8	2	6	7	10

Learn the examples above. Then write the answers to the examples below.

2 +3 = 5	6 −3 = 3	4 +1 = 5	5 −2 = 3	3 +3 = 6	5 −1 = 4	1 +1 = 2	5 −3 = 2	1 +4 = 5
2 −1 = 1	3 +2 = 5	5 −4 = 1	2 +1 = 3	3 −1 = 2	5 +5 = 10	3 −2 = 1	1 +8 = 9	8 −4 = 4


1



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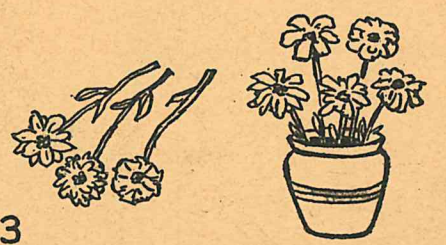
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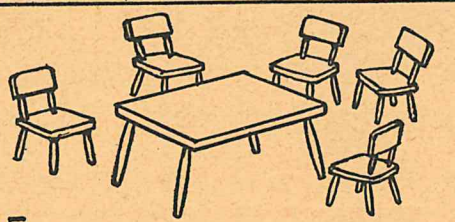
4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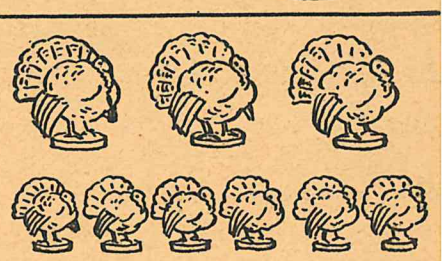

6

The pictures will help you get the answers.

1. The boys were playing with 5 small tops and 2 large tops. How many fewer large tops did they have than small ones?

To find how many fewer large tops than small tops they had, think, "2 tops from 5 tops are 3 tops."

You **subtract** 2 tops from 5 tops.

They played with 3 fewer large tops than small tops.

To find how many fewer, subtract.

2. Jane read 5 books last month and 4 books this month. How many fewer books did she read this month than last month?

4 books from 5 books are 1 book.

The answer is 1 book.

3. Nancy put 5 flowers in a bowl. She put 3 flowers on the table. How many fewer flowers did she put on the table than in the bowl?

3 flowers from 5 flowers are 2 flowers.

Nancy put 2 fewer flowers on the table than in the bowl.

4. Jack had 2 dimes and 1 quarter. How many fewer quarters than dimes did he have?

1 from 2 is 1.

The answer is 1 quarter.

5. Sally was playing with her toys. She had 5 doll chairs and 1 doll table. How many fewer tables did she have than chairs?

1 from 5 is 4.

She had 1 fewer doll tables than chairs.

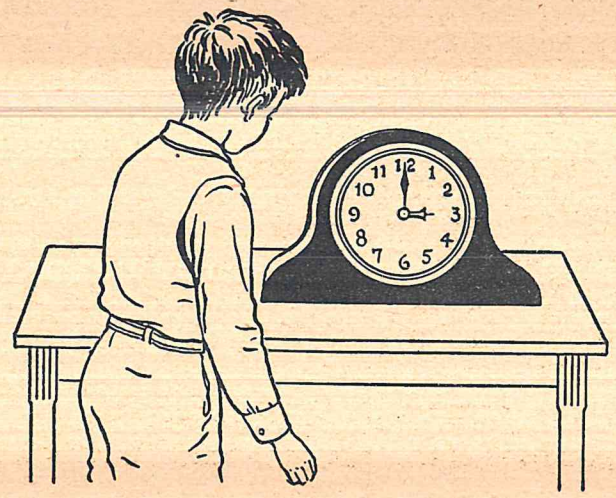
6. The girls gave a party. For prizes they had 6 little toy turkeys and 3 big toy turkeys. How many fewer big toy turkeys were there than little toy turkeys?

3 from 6 is 3.

The answer is 3 big toy turkeys.

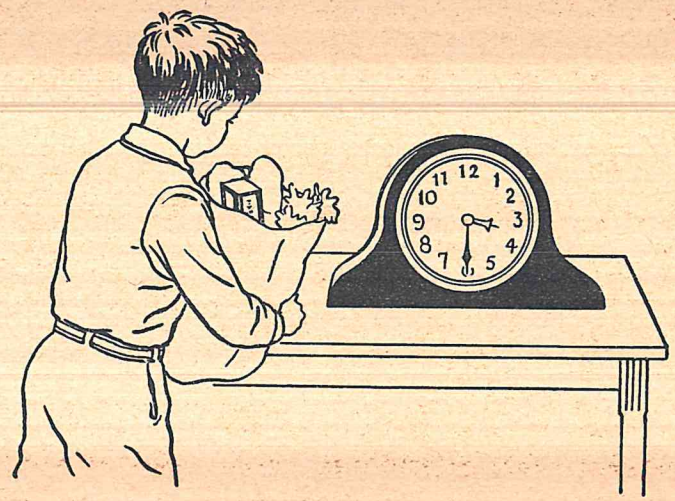
Subtract and write the answers:

6	5	5	2	5	5
−3	−4	−1	−1	−2	−3
3	1	4	1	3	2



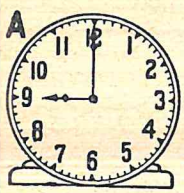
In the picture above at the left the clock shows the time when Bobby went to the store. The clock in the picture at the right shows the time when Bobby came back from the store.

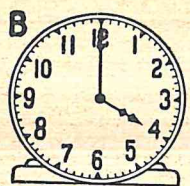
When Bobby came back, he said, "I have been away for half an hour."

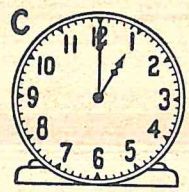


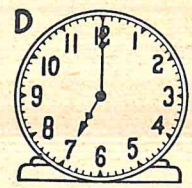
In the picture above at the left the long hand is at 12, and the short hand is at 3. When the long hand is at 12, the short hand shows what time it is. So it was 3 o'clock when he left for the store.

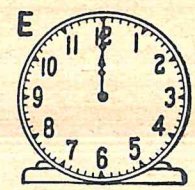
Look at the clocks below. Under each one write the time it shows.

A 
9 o'clock

B 
4 o'clock

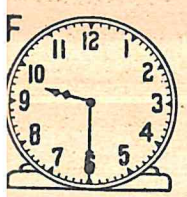
C 
1 o'clock

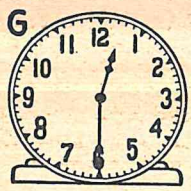
D 
7 o'clock

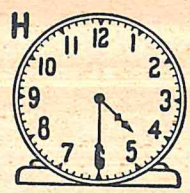
E 
12 o'clock

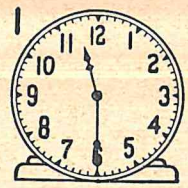
Look at the clock that tells when Bobby came back. The short hand has passed the 3. The long hand points to 6. When the long hand points to 6, it is **half-past** the hour. So it was half-past 3 when Bobby came back.

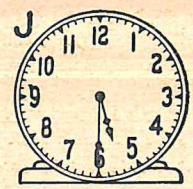
Look at the clocks below. Under each clock write the number that is missing.

F 
Half-past 9

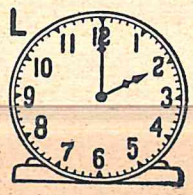
G 
Half-past 12

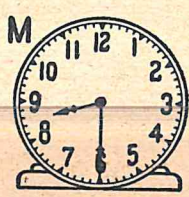
H 
Half-past 4

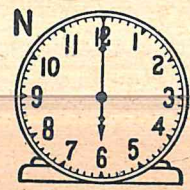
I 
Half-past 11

J 
Half-past 5

K
Half-past 6

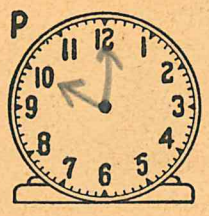
L 
2 o'clock

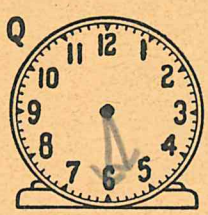
M 
Half-past 8

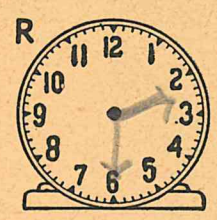
N 
6 o'clock

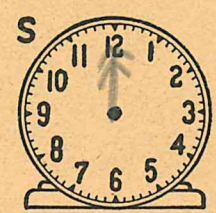
O
Half-past 10

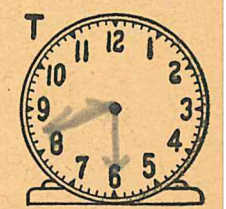
Here are ten more clocks. Look at the time under each clock. Draw the hands to make each clock show that time.

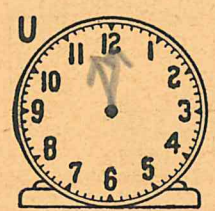
P 
10 o'clock

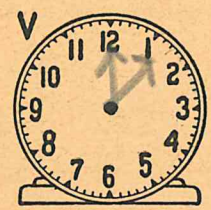
Q 
Half-past 5

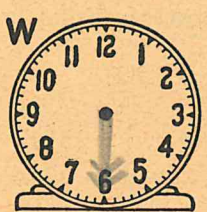
R 
Half-past 2

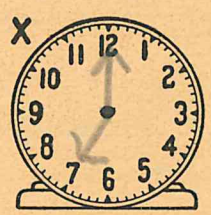
S 
12 o'clock

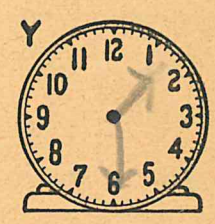
T 
Half-past 9

U 
Half-past 11

V 
1 o'clock

W 
Half-past 6

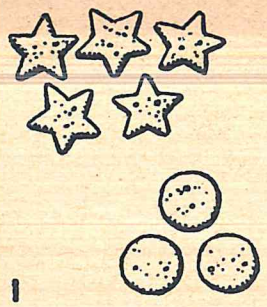
X 
7 o'clock

Y 
Half-past 1

Write the answers to these examples:

1.	6 −3 = 3	5 −1 = 4	4 +4 = 8	6 −1 = 5	2 +1 = 3	8 +1 = 9	5 +5 = 10	8 −4 = 4	3 −1 = 2
2.	10 −5 = 5	3 +3 = 6	1 +4 = 5	5 −2 = 3	5 −4 = 1	6 −5 = 1	3 −2 = 1	2 −1 = 3	2 +3 = 5
3.	9 −8 = 1	5 +1 = 6	4 −2 = 2	1 +8 = 9	9 −1 = 8	3 +2 = 5	1 +1 = 2	4 +1 = 5	5 −3 = 2

4. 2 + 2 are 4.
5. 1 + 5 are 6.
6. 1 + 2 are 3.
7. 4 + 4 are 8.
8. 3 + 3 are 6.
9. 8 + 1 are 9.
10. 5 + 5 are 10.
11. 3 + 2 are 5.
12. 1 from 3 is 2.
13. 4 from 5 is 1.
14. 3 from 6 is 3.
15. 4 from 8 is 4.
16. 2 from 3 is 1.
17. 1 from 5 is 4.
18. 2 from 5 is 3.
19. 1 from 2 is 1.
20. 1 and 1 are 2.
21. 3 from 5 is 2.
22. 4 and 1 are 5.
23. 8 from 9 is 1.
24. 2 and 3 are 5.
25. 5 from 10 is 5.
26. 1 and 8 are 9.
27. 1 from 9 is 8.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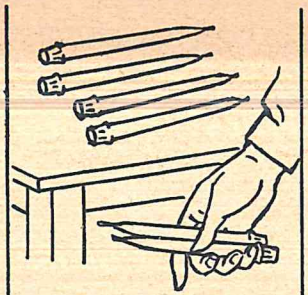
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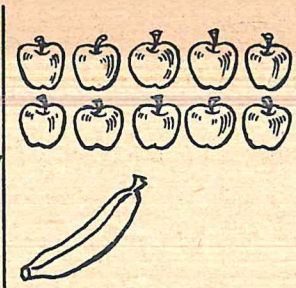
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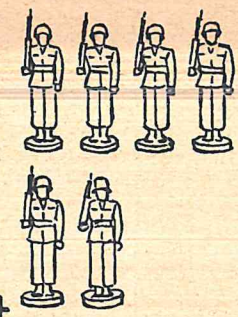
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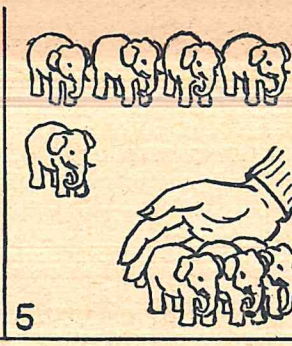
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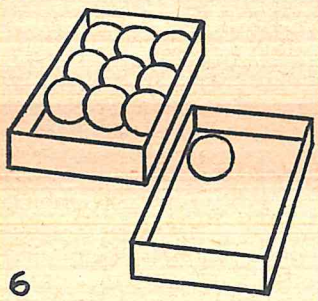
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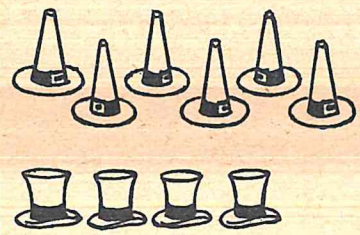
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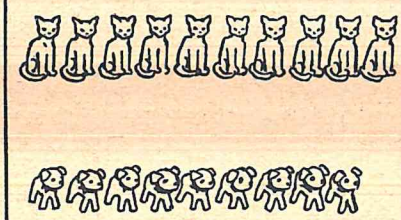
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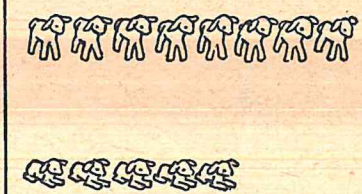

9

1. Jane put 9 balls in one box and 1 ball in another box. How many balls did Jane put in the two boxes?

Picture 6 goes with this problem. Examples c and b go with this problem. The answer is 10 balls.

2. Joe's mother had 10 apples and 1 banana. How many more apples did she have than bananas?

Picture 3 and Example 1 go with Problem 2. The answer is 9 apples.

3. Betty made 5 star cookies and 3 round cookies. In all how many cookies did she make?

Picture 1 goes with this problem. Examples e and f go with this problem. The answer is 8 cookies.

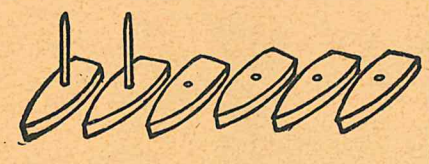
Look at Examples A to L below. On the line under each example write the number of the picture above that goes with the example.

Learn Examples A to L.

A	B	C	D	E	F	G	H	I	J	K	L
2 +4 = 6	4 +2 = 6	9 +1 = 10	1 +9 = 10	5 +3 = 8	3 +5 = 8	6 −2 = 4	6 −4 = 2	10 −1 = 9	10 −9 = 1	8 −3 = 5	8 −5 = 3
4	4	6	6	1	1	2	1	3	8	5	9

Write the answers to the examples below.

2 +4 = 6	3 +3 = 6	9 −8 = 1	4 +2 = 6	1 +9 = 10	9 −1 = 8	5 +3 = 2	10 −9 = 1	8 −5 = 3
4 +4 = 8	9 +1 = 10	10 −5 = 5	6 −2 = 4	8 −3 = 5	6 −4 = 2	8 +1 = 9	10 −1 = 9	3 +5 = 8



1

Money it takes to buy this doll.

Money Nancy has.

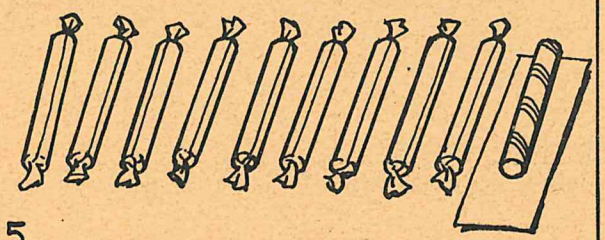
2

3

Betty's money

Bobby's money

4



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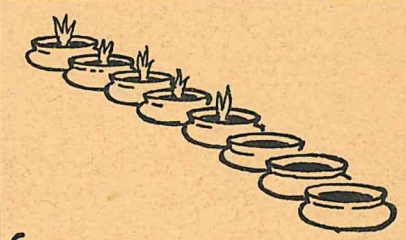


6

The pictures above will help you get the answers.

1. Jack made 6 boats. He put masts on 2 of the boats. How many more masts are needed so that he can put a mast on each boat?

All 6 boats will take 6 masts. Jack has used 2 masts on the boats. To find how many more masts are needed, think, "2 masts from 6 masts are 4 masts."

4 more masts are needed.

To find how many more are needed, subtract.

2. A doll that Nancy wanted to buy cost 10¢. Nancy had only 9¢. How much more money did Nancy need so that she could buy the doll?

9¢ from 10¢ is 1¢.

Nancy needed 1¢ more.

3. Jane has 8 dolls. She has boxes for 5 of the dolls. She wants boxes for all of the dolls. How many more boxes does she need?

5 boxes from 8 boxes are 3 boxes.

Jane needs 3 more boxes.

4. Betty has 6 pennies, and Bobby has 2 pennies. How much more does Bobby need to have as much money as Betty?

2 from 6 is 4.

Bobby needs 4¢ more.

5. Susan has 10 candy sticks. She has put paper around 9 of them. How many more sticks does she have to put paper around?

9 from 10 is 1.

She has 1 more stick.

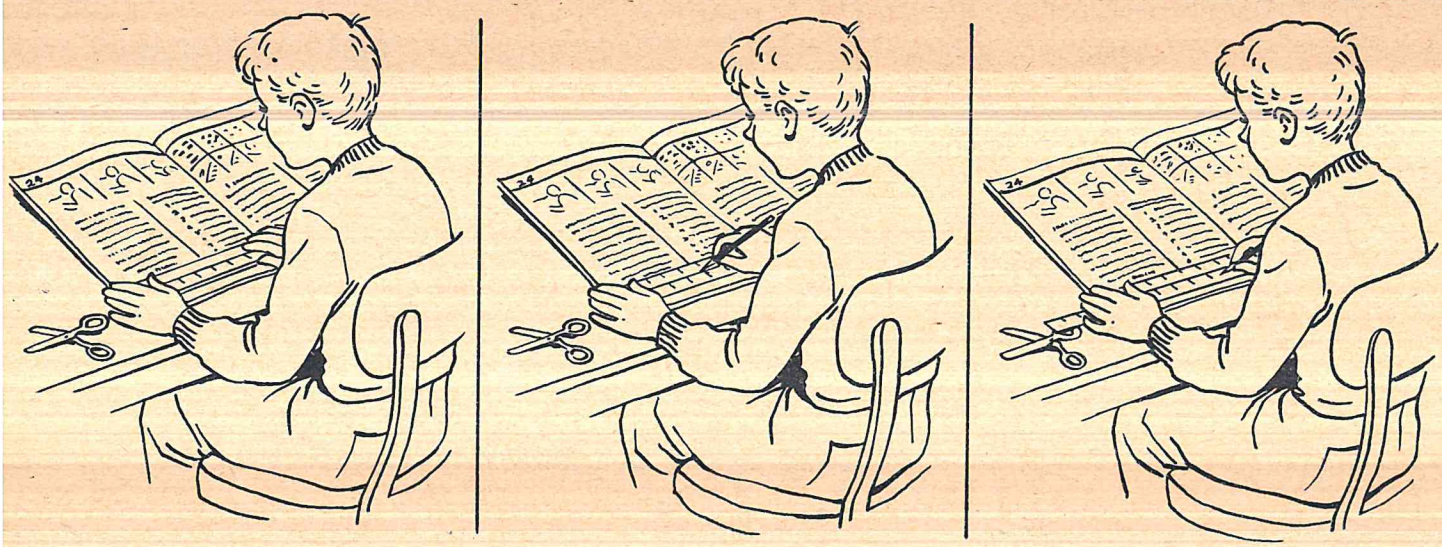
6. Henry has 8 bowls and 5 bulbs. He is planting a bulb in each bowl. How many more bulbs does he need?

5 from 8 is 3.

Henry needs 3 more bulbs.

Subtract and write the answers:

5	10	6	8	3
−4	−9	−1	−5	−1
1	1	5	3	2
6	10	8	6	4
−4	−1	−3	−2	−2
2	9	5	4	2
5	10	2	5	6
−3	−5	−1	−1	−5
2	5	1	4	1



Tom did not have a ruler. So he made one of cardboard. The pictures show how he did it. If you do not have a ruler, make one of paper or cardboard just as Tom did.

Cut some paper or cardboard so that it is narrow and long enough to make two rulers like the one at the bottom of the page.

Put your paper ruler on the ruler below just as Tom did in the picture. Make six lines for inches on your ruler. Now move your paper over to the left and make six more lines for inches. Write a number for each inch line. Write the numbers from 1 to 12. Cut your paper ruler so that it is just long enough.

From one number to the next on your ruler is one inch.

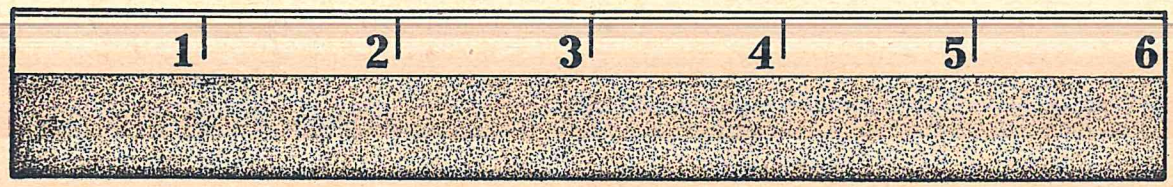
Your ruler is ____ inches long.

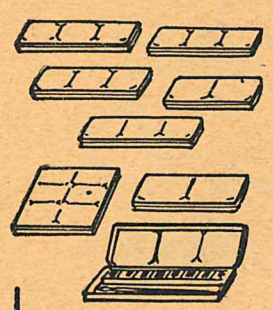
12 inches are 1 foot.

Your ruler is ____ foot long.

Measure with your ruler and write the missing numbers or words:

1. My book is about 11 inches long.
2. My chair is about 19 wide.
3. My shoe is about 8 inches long.
4. My shoe is about ____ inches wide.
5. The paper I write on is about 8 inches long. It is about 6 inches wide.
6. My hand is about 3 inches wide.
7. Without your ruler draw a line that you think is 1 inch long. Draw your line at the bottom of this page.
8. Without your ruler draw a line that you think is 3 inches long.
9. Without your ruler draw a line that you think is 2 inches long.
10. Measure your lines. Make them correct.

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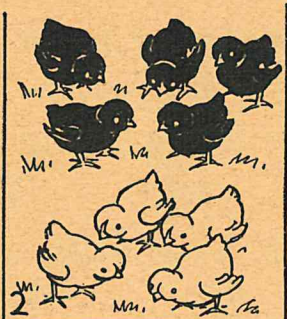
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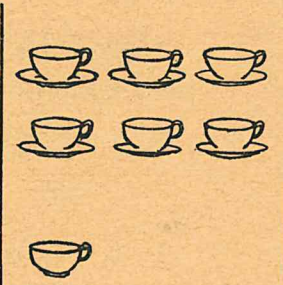
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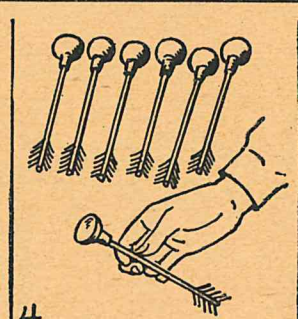
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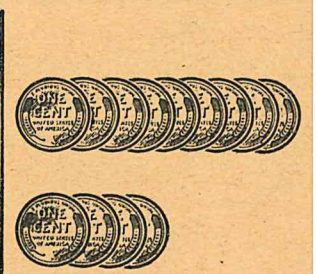
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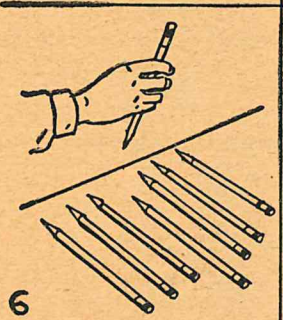
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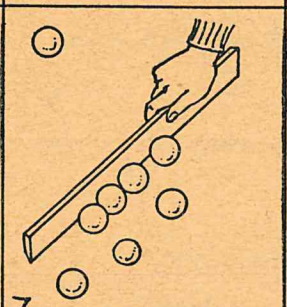
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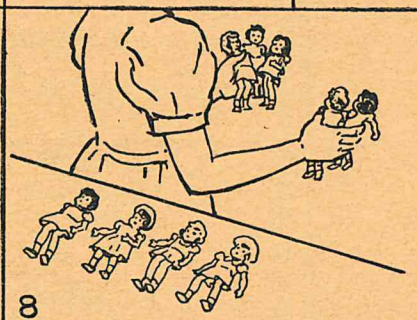
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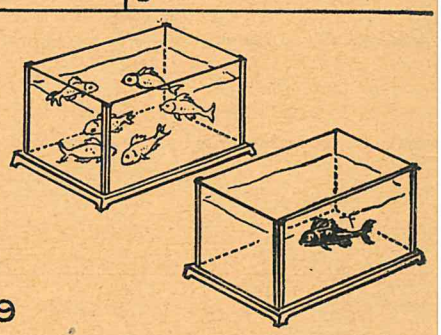

9

1. Betty has 9 dolls. She is giving away 5 of them. How many dolls will she have left?

Picture 8 goes with this problem. Example I shows the answer for the problem. The answer is 4 dolls.

2. Bobby has saved 9 pennies in his bank, and Nancy has saved 4 pennies in her bank. How many fewer pennies has Nancy saved than Bobby?

Picture 5 and Example i go with Problem 2. The answer is 5 pennies.

3. Jack has two tanks of fish. He has 6 fish in one tank and 1 fish in the other tank. How many fish does Jack have in the two tanks?

Picture 9 goes with Problem 3. Examples a and B go with this problem. The answer is 7 fish.

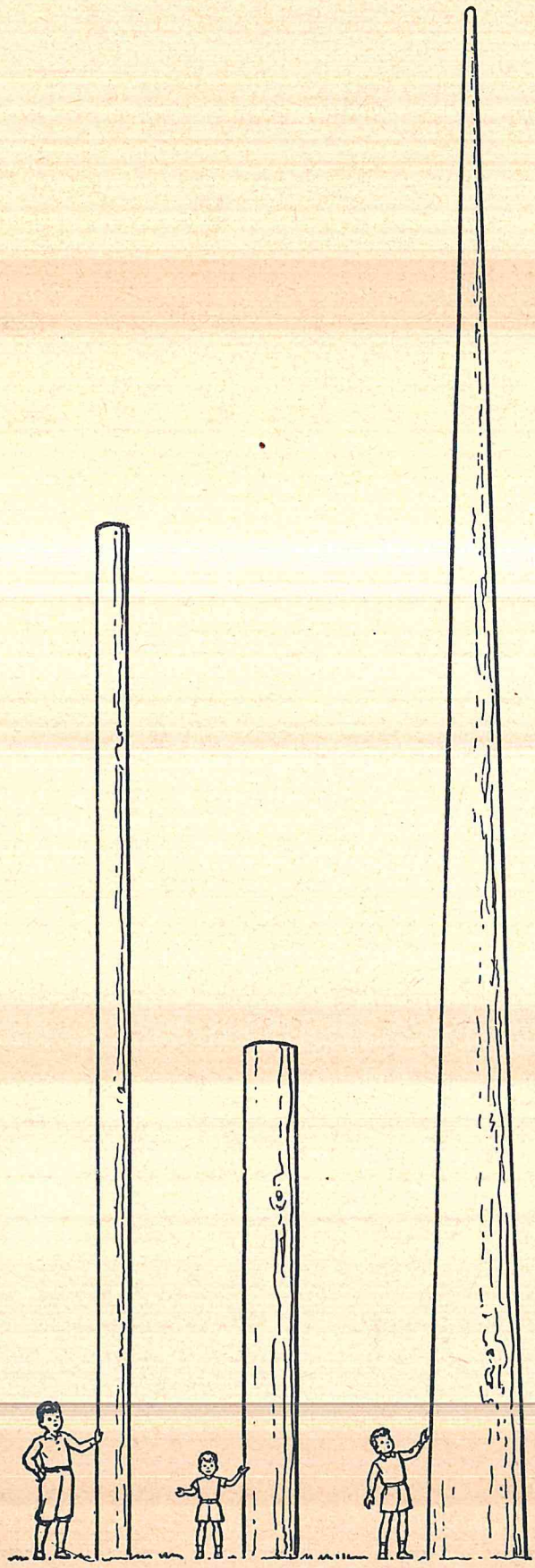
Look at Examples A to L below. On the line under each example write the number of the picture above that goes with the example.

Learn Examples A to L.

A	B	C	D	E	F	G	H	I	J	K	L
1 +6 = 7	6 +1 = 7	5 +4 = 9	4 +5 = 9	1 +7 = 8	7 +1 = 8	7 −1 = 6	7 −6 = 1	9 −4 = 5	9 −5 = 4	8 −1 = 7	8 −7 = 1
3	9	2	8	7	7	4	9	8	8		

Now write the answers to the examples below.

6 +1 = 7	4 +5 = 9	6 −2 = 4	4 +2 = 6	7 +1 = 8	9 −4 = 5	7 −1 = 6	1 +9 = 10	8 −1 = 7
5 +4 = 9	10 −9 = 1	1 +7 = 8	7 −6 = 1	9 −5 = 4	1 +6 = 7	8 −3 = 5	8 −7 = 1	3 +5 = 8



Draw a ring around the word or words that answer the question:

1. Which pole is the tallest?
   left **middle** **right**

2. Which of the poles is narrowest at the top? **left** **middle** **right**

3. Which of the poles is widest at the bottom? **left** **middle** **right**

4. At which pole is the largest boy?
   tallest **shortest** **left**

5. At which pole is the smallest boy?
   tallest **shortest** **left**

6. About how long is the picture of the tallest pole?
   4 inches **9 inches** **12 inches**

7. About how long is the picture of the shortest pole?
   8 inches **3 inches** **6 inches**

8. About how tall is the middle pole?
   1 foot **14 feet** **60 feet**

9. What is at the upper right of the picture? **1 bird** **2 birds** **1 boy**

10. What is at the lower left of the picture? **1 bird** **2 birds** **tallest boy**

Write the answers on the lines.

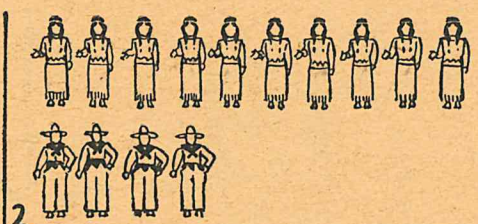
11. When you count by ones, what number comes between 39 and 41? 40

12. When you count by ones, what numbers come between 268 and 271? 269 and 270

13. When you count by twos, what numbers come between 14 and 20? 16 and 18

14. When you count by tens, what numbers come between 70 and 100? 80 and 90

1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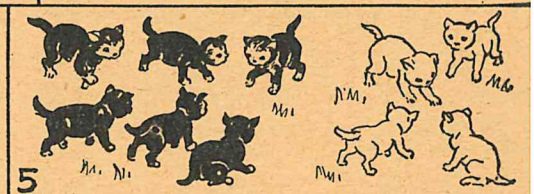
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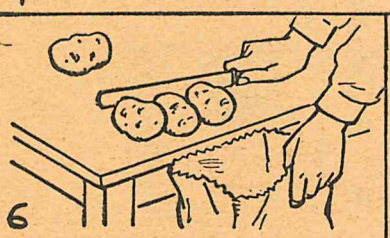
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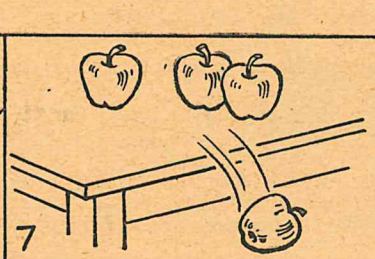
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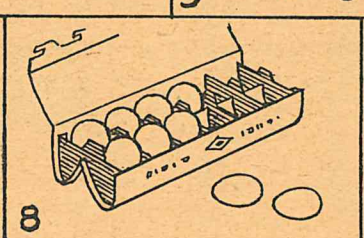
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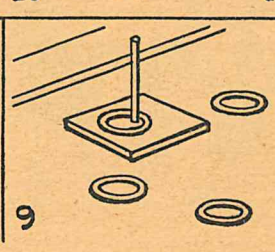

9

1. Jane put 4 apples on the table. Then one of them fell from the table. How many were left on the table?

Picture 7 goes with this problem. Example K shows the answer for Problem 1. The answer is 3 apples.

2. Nancy has 9 cents, and Jack has 2 cents. How much less money has Jack than Nancy?

Picture 1 and Example 1 go with Problem 2. The answer is 7 cents.

3. Betty has 7 eggs in a box and 2 eggs on the table. How many eggs does she have in all?

Picture 8 goes with Problem 3. Examples C and D go with this problem. The answer is 9 eggs.

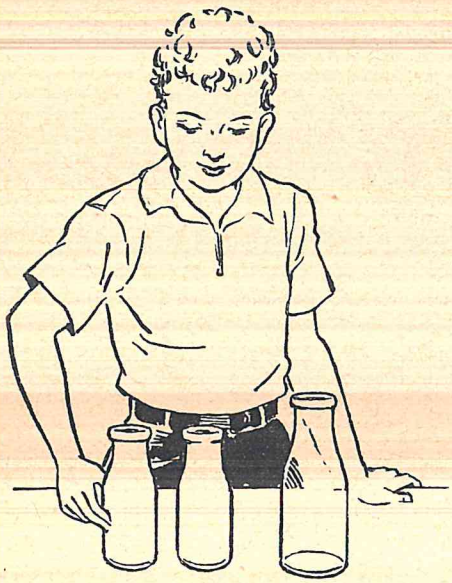
Look at Examples A to L below. On the line under each example write the number of the picture above that goes with the example.

Learn Examples A to L.

A	B	C	D	E	F	G	H	I	J	K	L
6 +4 = 10	4 +6 = 10	7 +2 = 9	2 +7 = 9	3 +1 = 4	1 +3 = 4	10 −4 = 6	10 −6 = 4	9 −2 = 7	9 −7 = 2	4 −1 = 3	4 −3 = 1
5	5	4	4	9	9	2	3	1	8	7	6

Write the answers to the examples below.

1 +7 = 8	4 −3 = 1	6 +4 = 10	5 +4 = 9	9 −2 = 7	5 +3 = 8	1 +3 = 4	2 +7 = 9	8 +1 = 9	7 −1 = 6
7 +2 = 9	9 −7 = 2	10 −4 = 6	4 −1 = 3	6 +1 = 7	8 −7 = 1	4 +6 = 10	3 +1 = 4	10 −6 = 4	4 +5 = 9



1

2

3

In Picture 1 Henry has 2 pint bottles with milk in them and 1 quart bottle without any milk in it. Now look at Pictures 2 and 3.

They show that 1 quart bottle holds exactly as much as 1 pint bottles.

2 pints equal 1 quart

3 pints equal 1 quart and 1 pint.

2 pints and 1 quart equal 3 pints.

Is bread sold by the pint? no

Is sugar sold by the quart? no

Look at lines F to J at the bottom of the page. Without measuring, decide how long each line is.

Line F is 1 inch long.

Line G is 4 inches long.

Line H is 5 inches long.

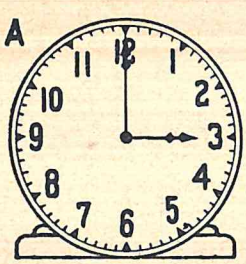
Line I is 2 inches long.

Line J is 3 inches long.

Now measure each line. Put X on each answer you had wrong.

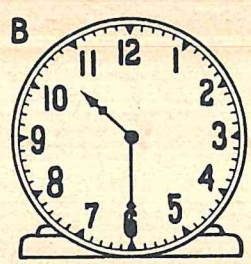
Under each clock below write the time it shows.

A



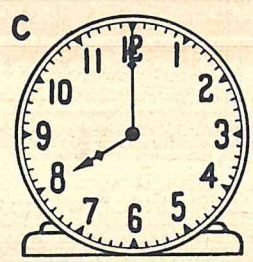
3 o'clock

B



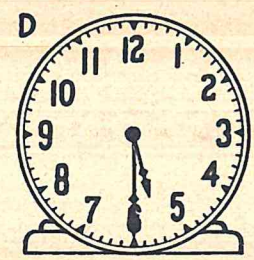
Half-past 10

C



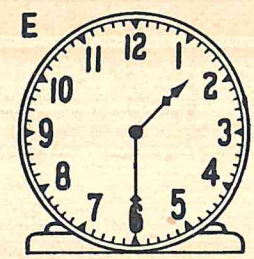
8 o'clock

D



Half-past 5

E

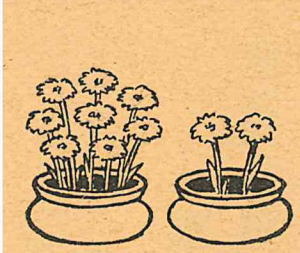


Half-past 1

F _____ G _____

H _____

I _____ J _____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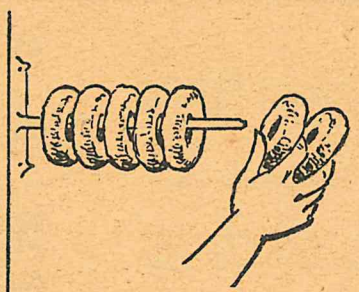
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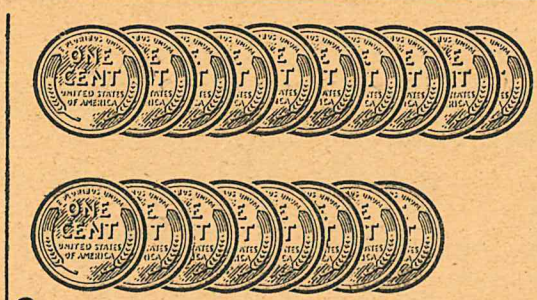
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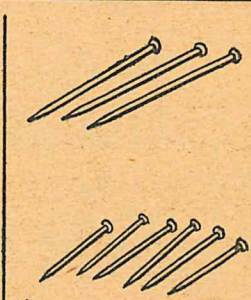
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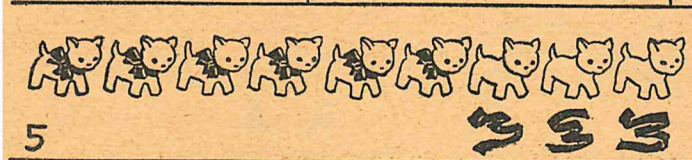
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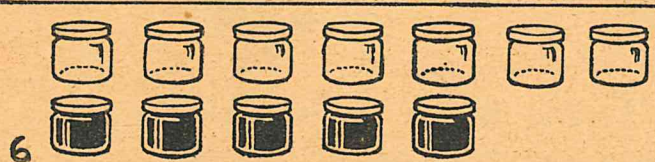
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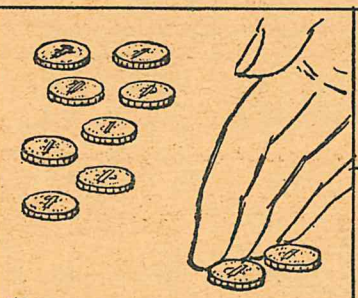
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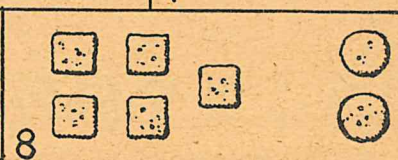

8

9

1. The store man has put ribbons on 6 of his 9 toy cats. How many toy cats does he have left to put ribbons on?

Picture 5 and Example J go with Problem 1. The answer is 3 toy cats.

2. Mary gave her friends 5 square cookies and 2 round cookies. How many cookies did she give her friends?

Picture 8 goes with Problem 2.

Examples a and B go with this problem. The answer is 7 cookies.

3. Joe had 10 dimes. He took 2 of them to school for the Red Cross. How many dimes did he have left?

Picture 7 and Example K go with Problem 3. The answer is 8 dimes.

4. Tom has 10 pennies, and Sam has 8. How many more pennies does Tom have than Sam?

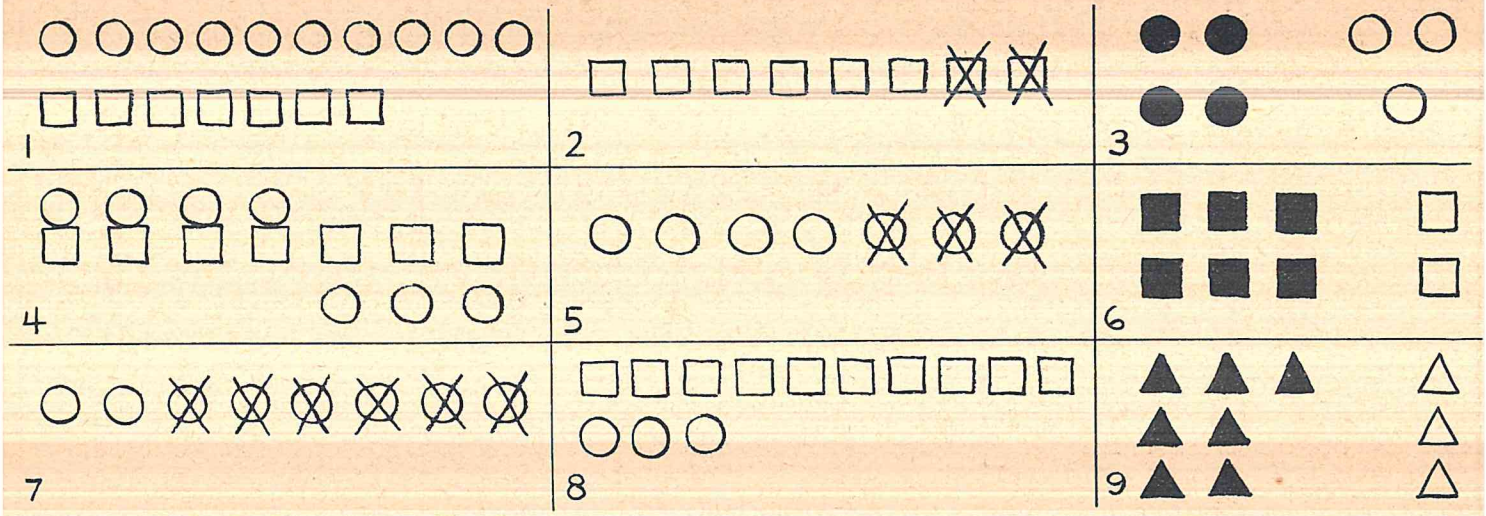
Picture 3 and Example L go with Problem 4. The answer is 2 pennies.

Under each example below write the number of the picture that goes with it.

A	B	C	D	E	F	G	H	I	J	K	L
5 +2 = 7	2 +5 = 7	3 +6 = 9	6 +3 = 9	8 +2 = 10	2 +8 = 10	7 −2 = 5	7 −5 = 2	9 −3 = 6	9 −6 = 3	10 −2 = 8	10 −8 = 2
5	5	4	4	1	1	1	6	9	5	1	3

Learn the examples above. Then write the answers for the examples below.

1 +2 = 3	7 −2 = 5	9 −3 = 6	7 +2 = 9	10 −8 = 2	4 +6 = 10	2 +7 = 9	10 −2 = 8	5 +2 = 7	2 +8 = 10
9 −6 = 3	2 +5 = 7	8 +2 = 10	6 +3 = 9	7 −5 = 2	3 +6 = 9	8 −1 = 7	9 −2 = 7	9 −7 = 2	10 −6 = 4



1. Bobby made 8 circles. Then he crossed out 6 of them. How many circles did he have left?

Picture 7 and Example J go with this problem. The answer is 2 circles.

2. Bobby cut out 7 squares. Then he cut out some circles to put on top of the squares. He cut out 4 circles. How many more circles did he need to cut out?

Picture 8 and Example K go with this problem. The answer is 7 circles.

3. Joe cut out 4 circles from black paper and 3 circles from white paper. How many circles did Joe cut out?

Picture 3 goes with Problem 3. Examples A and B go with this problem. The answer is 7 circles.

4. Betty made 10 circles and 7 squares. How many more circles did she make than squares?

Picture 1 and Example L go with this problem. The answer is 3 more circles.

Under each example below write the number of the picture that goes with it.

A	B	C	D	E	F	G	H	I	J	K	L
4 +3 = 7	3 +4 = 7	6 +2 = 8	2 +6 = 8	7 +3 = 10	3 +7 = 10	7 −3 = 4	7 −4 = 3	8 −2 = 6	8 −6 = 2	10 −3 = 7	10 −7 = 3
3	3	6	6	9	9	5	5	7	—	8	9

Learn the examples above. Then write the answers for the ones below.

10 −4 = 6	7 +3 = 10	7 −2 = 5	8 −6 = 2	6 +2 = 8	4 +3 = 7	2 +8 = 10	7 −4 = 11	2 +6 = 9	7 +1 = 8
10 −7 = 3	3 +4 = 7	1 +3 = 4	3 +6 = 9	7 −3 = 4	10 −8 = 2	9 −6 = 3	8 −2 = 6	3 +7 = 10	10 −3 = 7

NOVEMBER						
Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

DECEMBER						
Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Bobby made the calendar of November for the bulletin board. Betty is making the calendar for December. Write in all the numbers that are missing from her calendar.

Write the answers on the lines. Sometimes you will write **Yes** or **No.**

1. How many Mondays did Bobby show for November? 5
2. Did Betty start her calendar of December on the right day? yes
3. On the calendar above does November 4 come on Tuesday? yes
4. If Betty were to make a calendar for January, should she start it on Monday? no
5. Henry made the calendar for the month that comes before November. Should the last day on his calendar have been Sunday? yes.
6. What should have been the number of the last day? 30
7. How many days are there in December? 31
8. Are there one dozen months in a year? yes
9. How many weeks are there in a year? 52
10. How many days are there in a week? 7
11. Is Sunday or Monday the first day of the week? Sunday
12. How many days are there in June? 30
13. The second month of this year has how many days? 29

Write the answers for these examples:

2	4	10	7	4	1	4	3	6	10
+6	+3	−5	−5	−3	+3	−1	+4	+3	−7
8	7	5	2	1	4	3	7	9	3
7	8	3	6	2	10	8	7	8	5
−4	−6	+7	+2	+5	−2	+1	−3	−2	+5
3	2	10	8	7	8	9	4	6	10

Add in each example:

1.	3 +1 = 4	5 +2 = 7	4 +6 = 10	3 +7 = 10	3 +4 = 7	5 +4 = 9	2 +5 = 7	1 +2 = 3	2 +8 = 10	3 +5 = 8
2.	4 +3 = 7	2 +6 = 9	1 +7 = 8	6 +4 = 10	4 +5 = 9	3 +6 = 9	5 +5 = 10	1 +9 = 10	7 +3 = 10	4 +1 = 5
3.	1 +5 = 6	2 +7 = 9	6 +3 = 9	7 +1 = 8	1 +4 = 5	5 +3 = 8	1 +6 = 7	8 +2 = 10	4 +2 = 6	9 +1 = 10

Subtract in each example:

4.	10 −1 = 9	7 −6 = 1	4 −3 = 1	10 −9 = 1	2 −1 = 1	7 −4 = 3	8 −3 = 6	10 −3 = 7	7 −1 = 6	9 −5 = 4
5.	10 −7 = 3	6 −4 = 2	7 −5 = 2	3 −2 = 1	8 −6 = 2	8 −1 = 7	4 −1 = 3	8 −5 = 3	10 −5 = 5	9 −3 = 6
6.	5 −3 = 2	10 −2 = 8	9 −7 = 2	10 −4 = 6	9 −2 = 7	6 −2 = 4	9 −1 = 8	6 −5 = 1	3 −1 = 2	5 −2 = 3

Write the answers for each example:

7.	2 +1 = 3	7 +2 = 9	3 +2 = 5	4 −2 = 2	6 −3 = 3	1 +1 = 2	6 −1 = 5	8 −4 = 4	9 −6 = 3	8 +1 = 9
8.	5 −1 = 4	10 −6 = 4	5 +1 = 6	2 +3 = 5	9 −8 = 1	1 +3 = 4	7 −3 = 4	2 +2 = 4	2 +4 = 6	8 −2 = 6
9.	6 +2 = 8	1 +8 = 7	9 −4 = 5	7 −2 = 5	5 −4 = 1	6 +1 = 7	3 +3 = 6	8 −7 = 1	4 +4 = 8	10 −8 = 2

Read each problem very carefully. Then decide whether you should add or subtract to get the answer.

1. Jack gave 5 cents to the Red Cross and 4 cents to his brother Tom. How much money did he give away?

The answer is 9 cents.

2. Betty earned 10 cents on Tuesday and 6 cents on Wednesday. How much more money did she earn on Tuesday than on Wednesday?

The answer is 16 cents more.

3. Jane found 7 eggs on Monday and 2 eggs on Tuesday. How many fewer eggs did she find on Tuesday than on Monday?

The answer is 9 fewer eggs.

4. Joe has 3 darts, and Tom has 2 darts. How many darts do both boys have?

The answer is 5 darts.

5. Henry has 10 small boats. He has put sails on 8 of his boats. How many more boats need sails?

The answer is 18 more boats.

6. Henry used 4 large sails and 5 small sails. How many sails did Henry use?

The answer is 9 sails.

7. An animal button that Betty wants will cost her 7 cents. Betty has only 4 cents. How much more money does she need so that she can buy the animal button?

The answer is 3 more cents.

8. Betty has saved 5 nickels in her bank, and Bobby has saved 3 nickels in his bank. How many nickels have the two children saved in their banks?

The answer is 8 nickels.

9. Susan took 10 cookies to school. She gave 9 of them to her friends. How many did she have left?

The answer is 1 cooky.

10. Nancy planted 3 flower bulbs in a blue bowl and 6 flower bulbs in a green bowl. How many fewer flower bulbs did she plant in the blue bowl than in the green bowl?

The answer is 9 fewer bulbs.

11. Jack decided to give each of 8 friends an apple. He could find only 5 apples. How many more apples did he need?

The answer is 3 more apples.

12. Mary is saving buttons. She cut 4 buttons from an old red dress and 3 buttons from an old yellow dress. How many buttons did she cut from both dresses?

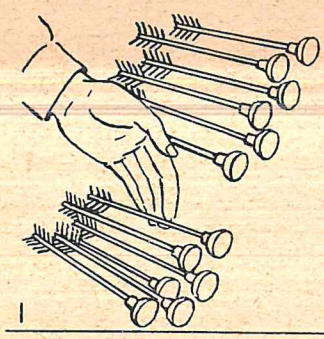
The answer is 7 buttons.

13. Sam found 8 old paintbrushes. He fixed all but 3 of them. How many paintbrushes did he fix?

The answer is 5 paintbrushes.

14. Betty wrote 9 examples on her paper. She had the right answer for 8 of them. How many examples did she have wrong?

The answer is 1 example wrong.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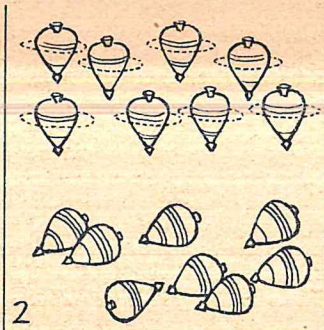
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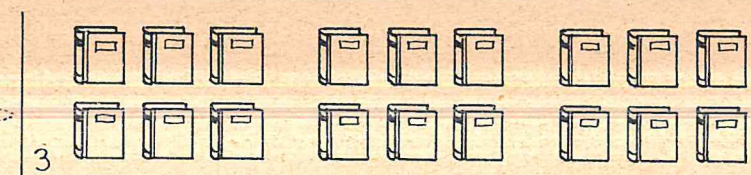
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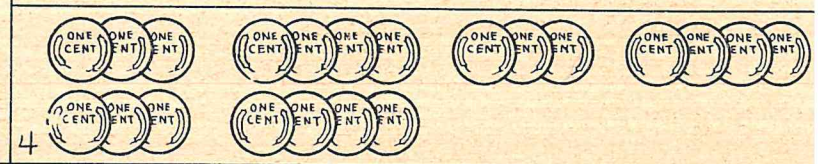

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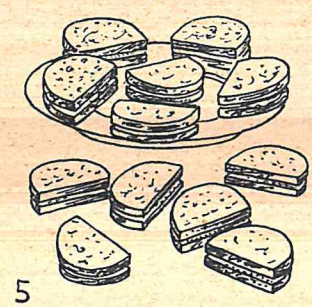
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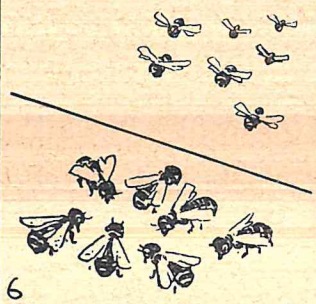
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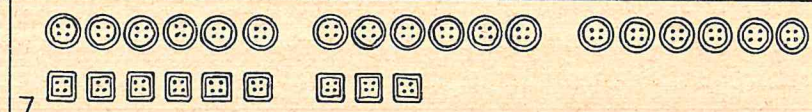
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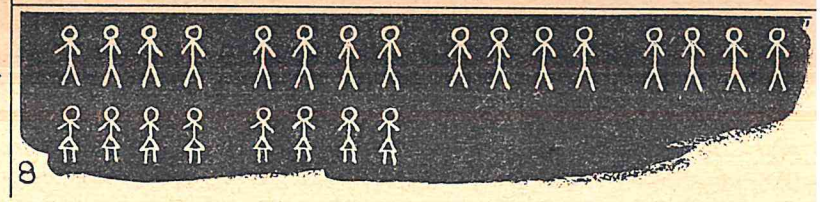

8

1. There were 12 darts in the store. Jack bought 6 of them. How many darts were left in the store?

Picture 1 and Example B go with this problem. The answer is 6 darts.

2. Betty saw 7 bees on a picnic table and 7 other bees flying above the table. How many bees did she see in all?

Picture 6 and Example C go with this problem. The answer is 14 bees.

3. Jane made 16 stick boys and 8 stick girls on the blackboard. How many fewer stick girls than stick boys did she make?

Picture 8 and Example F go with Problem 3. The answer is 8 fewer girls.

4. Tom brought 9 books for the library, and Joe brought 9 books. How many books did the two boys bring?

Picture 3 and Example G go with Problem 4. The answer is 18 books.

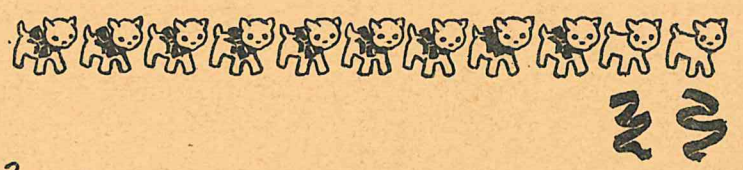
A	B	C	D	E	F	G	H
6 +6 12	12 −6 6	7 +7 14	14 −7 7	8 +8 16	16 −8 8	9 +9 18	18 −9 9
5	1	6	4	2	4	3	8

Under each example above write the number of the picture that goes with it.

Learn each example above. Then write the answers for the examples below.

7 +7 14	10 −7 3	12 −6 6	7 +3 4	2 +5 7	16 −8 8	6 +4 10	9 +9 18	7 −3 4	9 +1 10
18 −9 9	2 +6 8	4 −3 1	8 −6 2	8 +8 16	9 −5 4	3 +4 7	14 −7 7	6 +6 12	7 −4 3

1



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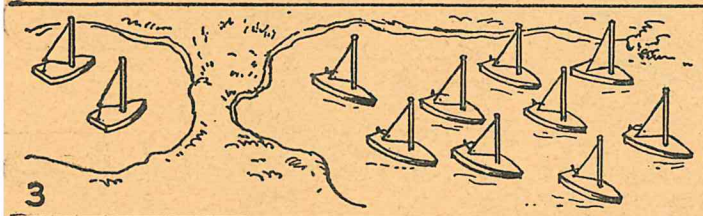

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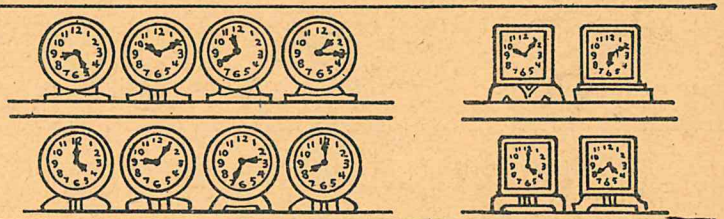

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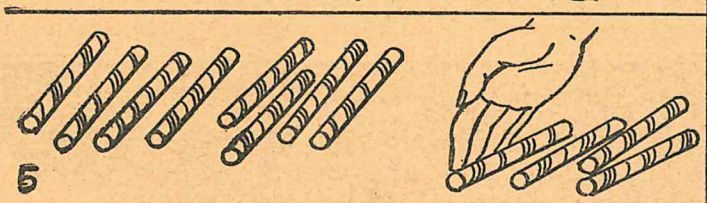

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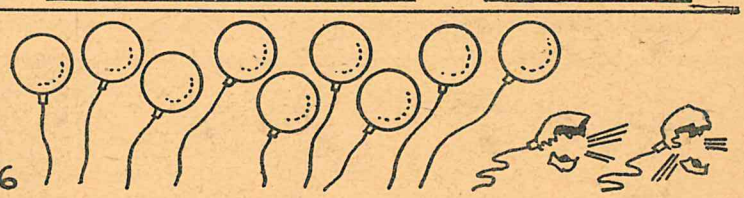


6

1. The store man has 11 toy kittens. He put ribbons on 9 of them. How many more kittens need ribbons?

Picture 2 and Example C go with Problem 1. The answer is 2 kittens.

2. The store has two kinds of clocks. There are 8 round clocks and 4 square clocks. How many clocks has the store?

Picture 4 goes with Problem 2. Examples E and F go with this problem. The answer is 12 clocks.

3. Susan earned 12 cents, and Mary earned 8 cents. How much less did Mary earn than Susan?

Picture 1 and Example H go with Problem 3. The answer is 4 cents.

4. Joe had 9 toy boats, and Tom had 2 toy boats. How many toy boats did both boys have?

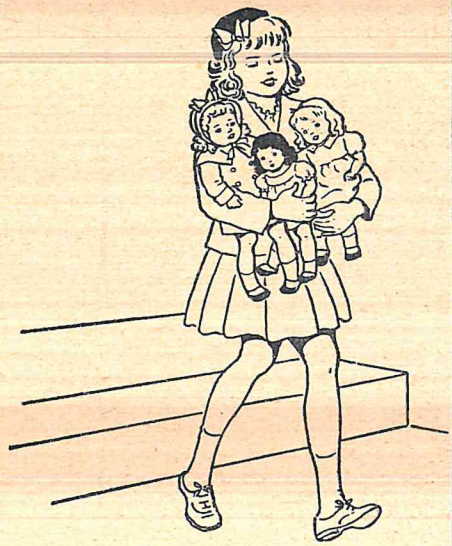
Picture 3 goes with Problem 4. Examples A and B go with this problem. The answer is 11 boats.

A	B	C	D	E	F	G	H
9 +2 = 11	2 +9 = 11	11 −9 = 2	11 −2 = 9	4 +8 = 12	8 +4 = 12	12 −4 = 8	12 −8 = 4
3	3	2	6	4	4	—	1

Under each example above write the number of the picture that goes with it.

Learn the examples above. Then write the answers for the examples below.

4 +8 = 12	12 −6 = 6	2 −1 = 1	6 +6 = 12	9 +2 = 11	12 −4 = 8	4 +3 = 1	8 −5 = 3	8 +8 = 16	18 −9 = 9
11 −9 = 2	16 −8 = 8	9 +9 = 18	8 +4 = 12	7 +7 = 14	3 +5 = 8	11 −2 = 9	12 −8 = 4	14 −7 = 7	2 +9 = 11



1. Jane asked Mary and Betty to come to her home for a doll party on Saturday. The pictures show Betty starting to the party with 3 dolls, Mary on the way with 2 dolls, and Jane at home with her 4 dolls. How many dolls in all will the girls have at the party?

Example A shows how to get the answer.
3, 2, and 4 are written in a column.
Start to add at the bottom of the column.
First add 4 and 2. 4 and 2 are 6.
You must remember the 6.
Now add this 6 and the 3. 6 and 3 are 9.
Write 9 for the answer.

A

3
2
4
9

The girls will have 9 dolls at the party.

2. Jane gave the girls 1 round cooky, 3 square cookies, and 2 star cookies. How many cookies did she give them?

Look at Example B. Write the answers on the lines after the questions.

What three numbers are written in a column?
1, 3, and 2
What numbers do you add first? 1 and 3
What number must you remember? 4
What do you add next? 4 and 2
Is the correct answer 6 cookies? yes

B

1
3
2
6

3. Betty brought 2 new doll dresses, Mary brought 2, and Jane had 4. How many new doll dresses did they all have at the party?

There is a box at the right for the example that will show how to find the answer.

Write the example and add.

The answer for Problem 3 is 6 new doll dresses.

C
$$\begin{array}{r} 2 \\ +4 \\ \hline 6 \end{array}$$

4. The girls put their money together to buy apples. Jane had 2 cents, Mary had 6 cents, and Betty had 1 cent. How much money did they have?

Write Example D to find the answer. Write it in the box at the right.

Write the answer for Example D.

The answer for Problem 4 is 9 cents.

D
$$\begin{array}{r} 2 \\ 6 \\ +1 \\ \hline 9 \end{array}$$

5. The girls cut out paper dolls. Jane cut out 5 paper dolls, Betty cut out 3 paper dolls, and Mary cut out 2 paper dolls. How many paper dolls did the three girls cut out?

Write Example E to find the answer. Write it in the box.

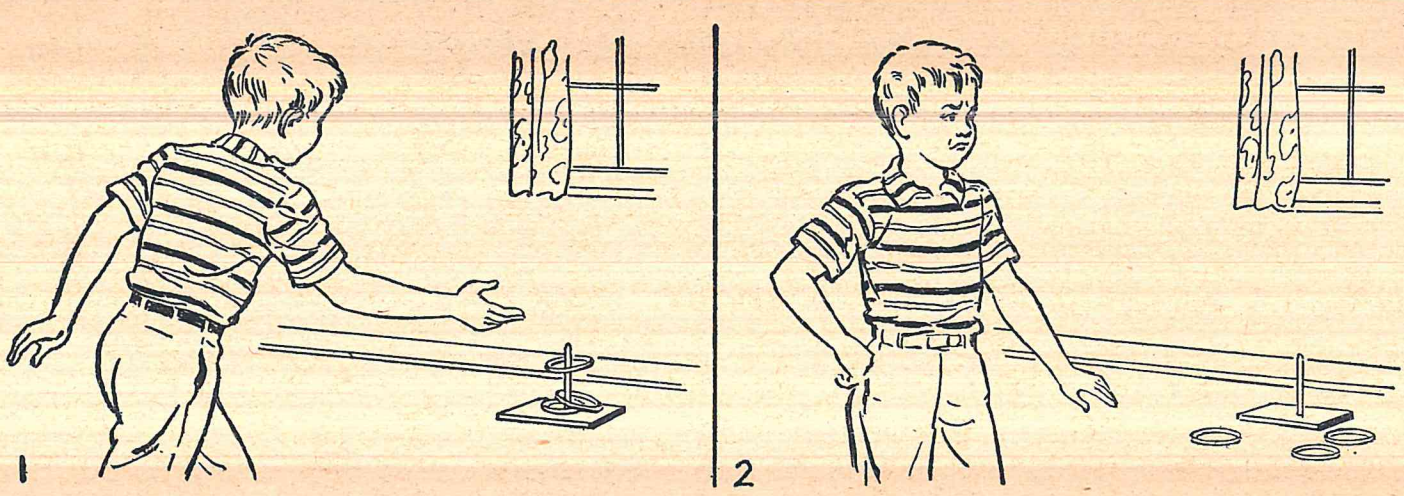
Write the answer for Example E.

The answer for Problem 5 is 10 paper dolls.

E
$$\begin{array}{r} 5 \\ 3 \\ +2 \\ \hline 10 \end{array}$$

Write the answers for the examples below.

3 3 4 10	2 1 3 6	2 2 5 9	1 1 8 10	6 2 1 9	2 3 5 10	1 2 6 9	4 2 2 8	5 4 1 10	1 3 6 9
3 1 1 5	2 2 3 7	1 4 3 8	2 4 2 8	1 7 2 10	4 5 1 10	8 1 1 10	4 3 2 9	6 1 3 10	5 3 1 9
2 1 6 9	2 6 2 10	2 7 1 10	1 5 3 9	3 1 4 8	1 2 4 7	4 1 5 10	3 5 2 10	3 3 3 9	1 6 1 8



The pictures show Tom playing ring toss. At his first throw he put 3 rings on the peg. At his second throw all of them rolled away. No rings went on the peg. How many rings did he put on the peg for the two throws?

Examples A and B at the right show the answer.

The answer is 3 rings.

When you add 0 and any other number, the answer is the same as the other number.

A
$$\begin{array}{r} 3 \\ +0 \\ \hline 3 \end{array}$$

B
$$\begin{array}{r} 0 \\ +3 \\ \hline 3 \end{array}$$

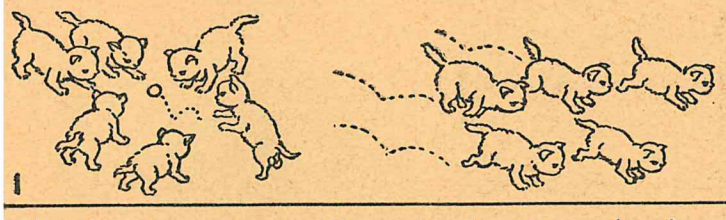
Write the answers for the examples below.

0+2=2	3+0=3	7+7=14	0+1=1
5+0=5	7+0=7	9+0=9	0+0=0
8+2=10	8+8=16	0+6=6	5+5=10

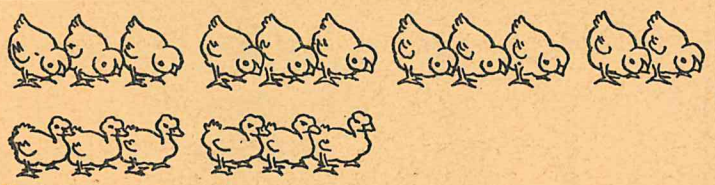
0 +6 6	6 +6 12	8 +0 8	1 +0 1	0 +4 4	3 +7 10	9 +2 11	6 +0 6	4 +8 12	2 +9 11
2 +0 2	0 +7 7	8 +4 12	4 +0 4	1 +4 5	4 +5 9	0 +3 3	0 +8 8	0 +5 5	3 +7 10

Now write the answers for these examples:

5 +4 9	12 −8 4	0 +9 9	6 +2 8	11 −2 9	12 −4 8	3 +5 8	7 −6 13	10 −7 3	11 −9 2
1 4 3 8	1 3 5 9	2 4 1 7	2 4 4 10	7 1 2 10	2 3 3 8	3 1 3 7	2 2 2 8	1 2 7 10	5 2 1 8


1

2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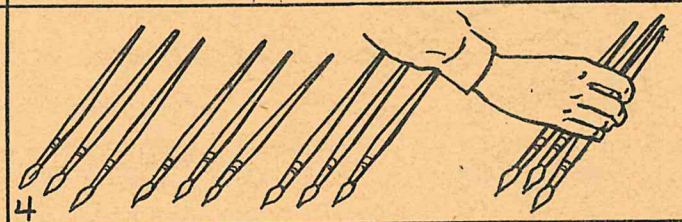
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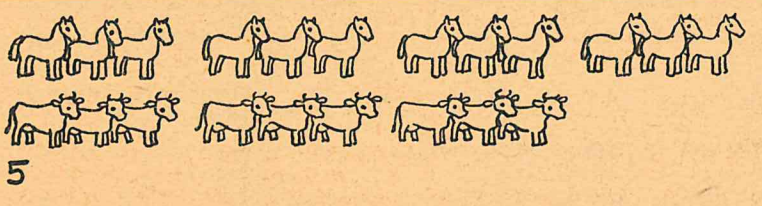
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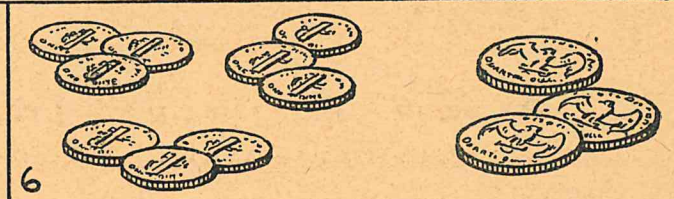

6

1. Dick has 5 little black dogs and 6 little white dogs. How many little dogs does he have?

Picture 2 goes with Problem 1.

Examples A and B go with this problem. The answer is 11 dogs.

2. Jane saw 11 kittens playing in the yard. Then 5 of them ran away. How many kittens were left in the yard?

Picture 1 and Example D go with Problem 2. The answer is 6 kittens.

3. All of Tom's money is in dimes and quarters. He has 9 dimes and 3 quarters. How many coins does he have?

Picture 6 goes with Problem 3.

Examples E and F go with this problem. The answer is 12 coins.

4. Susan's little brother has 12 toy horses and 9 toy cows. How many more toy horses does he have than toy cows?

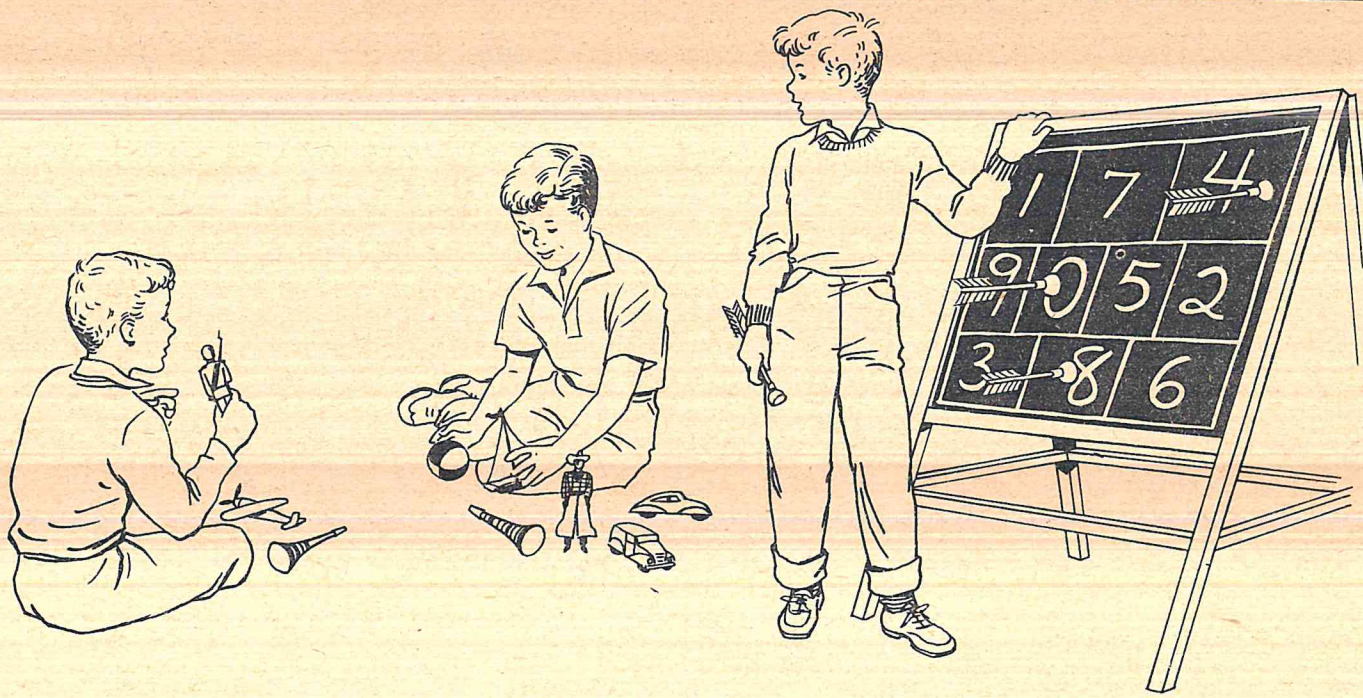
Picture 5 and Example H go with Problem 4. The answer is 3 toy horses.

A	B	C	D	E	F	G	H
5 +6 = 11	6 +5 = 11	11 −6 = 5	11 −5 = 6	3 +9 = 12	9 +3 = 12	12 −3 = 9	12 −9 = 3
2	2	1	1	6	6	4	5

Under each example above write the number of the picture that goes with it.

Learn the examples above. Then write the answers for the examples below.

9 +2 = 11	11 −6 = 5	9 +9 = 18	3 +9 =	0 +0 = 0	2 +9 = 11	5 +6 = 11	4 +8 =	12 −3 = 9	0 +8 = 8
6 +5 = 11	12 −9 = 3	8 +4 = 13	14 −7 = 7	11 −2 = 9	12 −6 = 6	12 −8 = 3	11 −5 = 6	9 +3 = 12	3 −2 = 1



1. On Saturday the boys played games. In the treasure hunt Bobby did not find any toys, Henry found 3 toys, and Jack found 6 toys. How many toys did they all find?

Example A shows how to get the answer. Write the answers on the lines below.

What numbers do you add first? 0 and 3 are 3.
What number must you remember? 3
What numbers do you add next? 3 and 6 are 9.
They found 9 toys in all.

A
0
3
6
9

2. In the dart game Bobby's darts went on 4, 0, and 8. What score did he make?

To find the answer, write 4, 0, and 8 in a column in the box at the right.

Add and write the answer for the example.

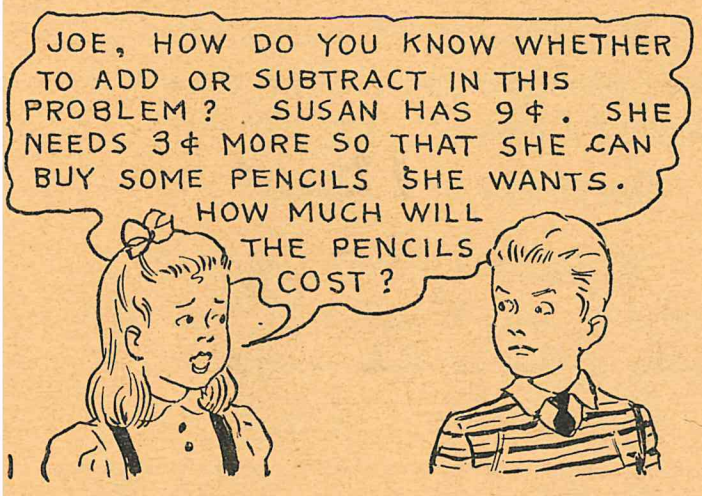
Bobby's score was 12.

B
4
0
8
12

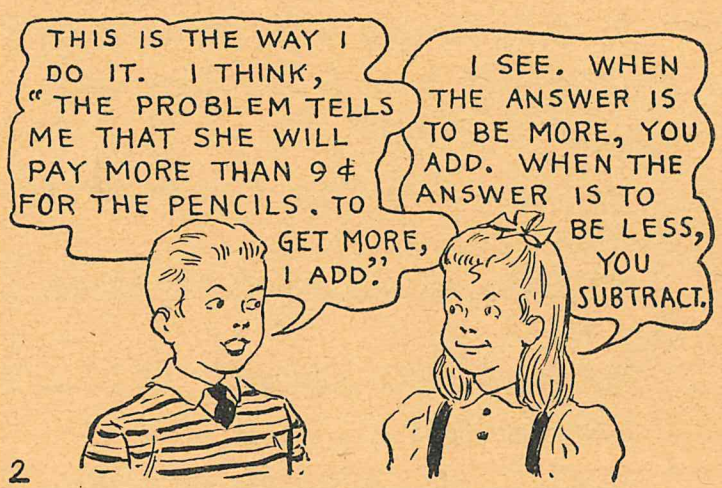
Write the answers for the examples below.

6	5	7	3	0	3	9	0	9	8
3	1	7	0	6	3	3	6	3	7
0	5	0	9	3	1	0	1	6	1
9	11	14	12	9	7	12	5	18	16

6	6	0	4	0	5	3	9	9	6
6	0	3	0	4	0	1	1	0	4
0	5	3	8	0	0	6	0	2	1
12	11	6	12	4	5	10	10	11	11


JOE, HOW DO YOU KNOW WHETHER TO ADD OR SUBTRACT IN THIS PROBLEM? SUSAN HAS 9¢. SHE NEEDS 3¢ MORE SO THAT SHE CAN BUY SOME PENCILS SHE WANTS. HOW MUCH WILL THE PENCILS COST?

1


THIS IS THE WAY I DO IT. I THINK, "THE PROBLEM TELLS ME THAT SHE WILL PAY MORE THAN 9¢ FOR THE PENCILS. TO GET MORE, I ADD."
I SEE. WHEN THE ANSWER IS TO BE MORE, YOU ADD. WHEN THE ANSWER IS TO BE LESS, YOU SUBTRACT.

2

The pictures tell how Joe thinks about problems before he begins to work them. These two pages will help you decide whether to add or subtract in a problem.

1. Betty had 8 problems correct. Jane had 4 more correct than Betty. How many problems did Jane have correct?

Does Jane have more than or fewer than 8 problems correct? Write **more** or **fewer** on the line. more

Should the answer be larger or smaller than 8? larger

Do you add or subtract? add

The answer is 12 problems.

2. Billy has 6 apples. He has 3 apples fewer than Tom. How many has Tom?

Does Tom have more than or fewer than 6 apples? fewer

Should the answer be smaller or larger than 6? smaller

Do you add or subtract? subtract

The answer is 9 apples.

3. Bobby has made 4 airplanes, and Jack has made 5 airplanes. How many airplanes have both boys made?

Have they made more than or fewer than 4 airplanes in all? more

Do you add or subtract? add

The answer is 9 airplanes.

4. Dick had 5 cents when he went to the store. He gave 3 cents for some candy. How much money did he have left?

Should the answer be larger or smaller than 5? smaller

Should you add or subtract? subtract

The answer is 2 cents.

5. Mary found 6 eggs. She found 4 more than Tom. How many eggs did Tom find?

Did Tom find more than or fewer than 6 eggs? fewer

Should the answer be larger or smaller than 6? smaller

Do you add or subtract? subtract

The answer is 2 eggs.

6. Jane found 6 eggs. She found 4 fewer eggs than Joe. How many eggs did Joe find?

Did Joe find more than or fewer than 6 eggs? more

Should the answer be larger or smaller than 6? larger

Do you add or subtract? add

The answer is 10 eggs.

7. Betty found 6 eggs. Susan found 4 fewer eggs than Betty. How many eggs did Susan find?

Did Susan find more than or fewer than 6 eggs? _____

Should the answer be larger or smaller than 6? _____

Do you add or subtract? _____

The answer is ___ eggs.

Before you do any figuring, think about your problems just as you have been doing here. The problem will tell you whether your answer is to be larger or smaller than the numbers in the problem.

8. Sam is saving pencils. He has 6 old pencils and 5 new pencils. How many pencils does he have?

The answer is ___ pencils.

9. Bingo carried away 8 darts. The boys found 2 of them. How many darts could the boys not find?

The answer is ___ darts.

10. Sam has saved 7 nickels. He has saved 4 more nickels than Tom. How many nickels has Tom saved?

The answer is ___ nickels.

11. Bobby played 4 records. Mary played 5 more records than Bobby. How many records did Mary play?

The answer is ___ records.

12. In a game Joe made a score of 8 points. His score was 4 points more than Jack's. What was Jack's score?

The answer is ___ points.

Write the answers for these examples:

18	10	6	12	9	9	11	0	6	12
−9	−8	+5	−3	+9	−5	−6	+2	−4	−9
9	2	10	10	19	4	5	2	2	3
1	9	3	14	8	11	3	7	4	5
+0	−7	+9	−7	−7	−5	+0	−5	−3	+6
1	2	12	7	1	6	3	2	1	11
0	8	0	3	5	3	6	4	7	4
5	3	0	8	4	9	1	0	5	1
0	5	6	1	2	0	4	8	2	3
5	16	6	12	11	12	11	12	14	8

Write the numbers in each example below in a column. Then add. The first example is written for you.

1, 3, 6	3, 0, 7	4, 5, 3	6, 3, 2	8, 0, 0
1 3 6	3 0 7	4 5 3	6 3 2	8 0 0
	10	12	11	8

1. Jack's mother made 4 candy apples for him and his friends. Jack took the 4 candy apples to the playground. How many candy apples did he leave at home? Look at the pictures.

A
$$\begin{array}{r} 4 \\ -4 \\ \hline 0 \end{array}$$

Example A shows the answer.
4 apples from 4 apples are 0 apples.
He left 0 candy apples at home.

When you subtract a number from itself, the answer is 0.

2. Henry ate 2 candy apples. Joe did not eat any candy apples. How many more candy apples did Henry eat than Joe?

B
$$\begin{array}{r} 2 \\ -0 \\ \hline 2 \end{array}$$

Example B shows the answer.
0 candy apples from 2 candy apples are 2 candy apples.
Henry ate 2 more candy apples than Joe.

When you subtract 0 from any other number, the answer is the same as the other number.

Now write the answers for the examples below.

9	1	11	7	9	0	12	9	8	5
−0	−1	−6	−0	−3	−0	−3	−3	−8	−0
9	0	5	7	6	0	9	6	0	5
8	6	4	3	10	1	7	11	4	12
−0	−6	−0	−3	−1	−0	−7	−5	−4	−8
8	0	4	0	9	1	0	6	0	4
3	16	5	2	6	9	10	12	2	11
−0	−8	−5	−0	−0	−9	−3	−9	−2	−2
3	8	0	2	6	0	7	3	0	9

Add in each example below.

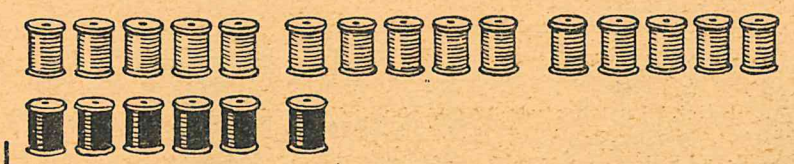
0 +9 = 9	5 +0 = 5	0 +4 = 4	9 +9 = 19	5 +6 = 11	1 +0 = 1	0 +8 = 8	4 +8 = 12	6 +0 = 6	9 +3 = 12
9 +2 = 11	7 +0 = 7	0 +2 = 2	3 +0 = 3	3 +9 = 12	9 +0 = 9	0 +3 = 3	2 +0 = 2	8 +8 = 16	0 +6 = 6
4 +0 = 4	7 +7 = 14	2 +9 = 11	0 +0 = 0	6 +5 = 11	0 +7 = 7	6 +6 = 12	0 +5 = 5	8 +4 = 12	8 +0 = 8

Subtract in each example below.

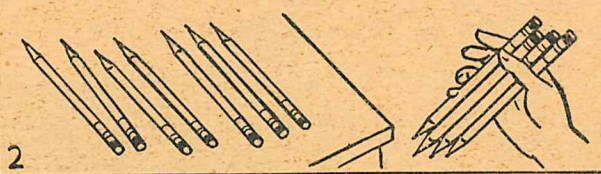
12 −6 = 6	1 −0 = 1	11 −2 = 9	9 −9 = 0	6 −0 = 6	6 −6 = 0	3 −0 = 3	4 −4 = 0	11 −9 = 2	12 −4 = 8
5 −0 = 5	16 −8 = 8	7 −7 = 0	5 −5 = 0	11 −5 = 6	7 −0 = 7	8 −8 = 0	12 −3 = 9	3 −3 = 0	18 −9 = 9
11 −6 = 5	9 −0 = 0	14 −7 = 7	2 −0 = 2	12 −8 = 4	0 −0 = 0	2 −2 = 0	8 −0 = 8	4 −0 = 4	12 −9 = 3

Write the answers for each example below.

0 2 7 = 9	8 0 4 = 12	7 1 6 = 14	2 1 3 = 6	5 6 0 = 11	8 5 3 = 12	0 1 7 = 8	4 0 5 = 9	9 1 0 = 10	6 1 5 = 12
4 3 3 = 10	9 0 3 = 12	0 7 0 = 7	4 2 6 = 12	9 0 0 = 9	3 1 5 = 9	9 0 2 = 11	0 4 4 = 8	3 2 1 = 6	2 5 2 = 9
8 6 2 = 16	9 5 4 = 18	8 2 0 = 10	1 5 3 = 9	2 7 2 = 11	0 2 5 = 7	7 6 1 = 12	1 4 0 = 5	4 1 5 = 10	9 9 0 = 18



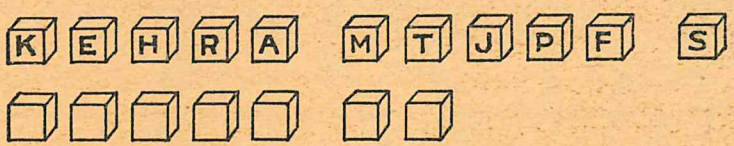
1



2

3

4



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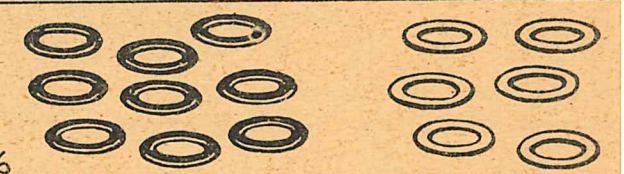


6

1. Jack has painted the rings for his ring toss game. He has painted 9 rings black and 6 rings white. How many rings has he painted?

Picture 6 goes with Problem 1.

Examples e and f go with this problem. The answer is 15 rings.

2. Jane's mother has 15 jars. She has covers on 9 of them. How many more covers will she use for the jars?

Picture 4 and Example G go with Problem 2. The answer is 6 more covers.

3. Betty has only nickels and pennies in her bank. She has 7 pennies and 4 nickels. How many coins does she have in her bank?

Picture 3 goes with Problem 3.

Examples a and B go with this problem. The answer is 11 coins.

4. Mary had 11 pencils at home. She took 4 of these pencils to school. How many did she leave at home?

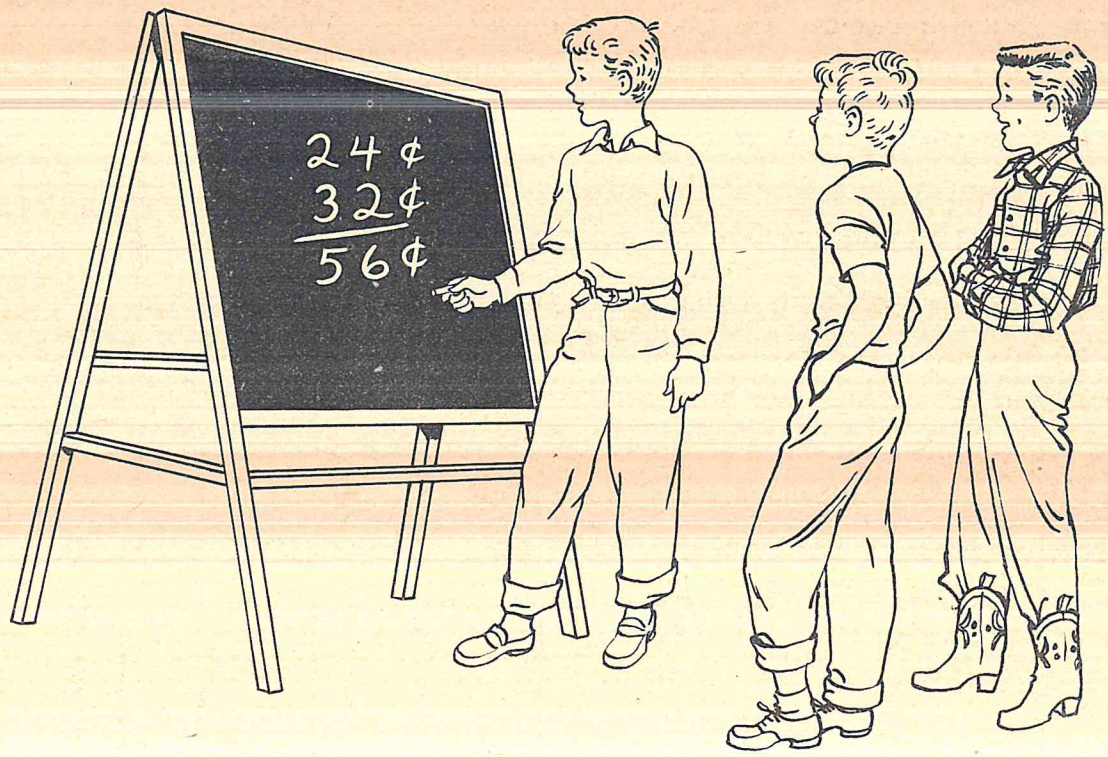
Picture 2 and Example D go with Problem 4. The answer is 7 pencils.

A	B	C	D	E	F	G	H
4 +7 = 11	7 +4 = 11	11 −7 = 4	11 −4 = 7	6 +9 = 15	9 +6 = 15	15 −9 = 6	15 −6 = 9
3	3	5	2	6	6	4	1

Under each example above write the number of the picture that goes with it.

Learn the examples above. Then write the answers for the examples below.

15 −9 = 6	3 +9 = 12	4 +7 = 11	5 +6 = 11	3 +0 = 3	11 −6 = 5	11 −4 = 7	6 +5 = 11	12 −9 = 3	6 +9 = 15
4 +8 =	11 −5 = 6	9 −9 = 0	5 −0 = 5	15 −6 = 9	12 −3 = 9	9 +6 = 15	7 +4 = 11	9 +3 = 12	11 −7 = 4



1. Sam and Tom decided that they would like to buy a new game that they had found at the toy store. The game cost 60¢. Sam said he had 24¢, and Tom said he had 32¢. Did they have enough money to buy the game?

The picture shows how Sam added 24¢ and 32¢ to find out if they had enough.

First he added in the column that is at his right. He began at the bottom.

He thought, "2 and 4 are 6." He wrote 6 under the numbers that he added.

He added in the second column next. He thought, "3 and 2 are 5." He wrote 5 under the numbers that he added.

Did they have enough money? no

2. Joe said he had saved some money in his bank. He said he had 13¢ in pennies, 25¢ in nickels, and 40¢ in dimes. How much money did he have in his bank? The work in the next column shows how to get the answer.

You should add 13¢, 25¢, and 40¢ to get the answer. When you study the work below, write the answers on the lines.

Look at Example A. See how 13¢, 25¢, and 40¢ are written so that you can add them.

Do you add in the column at the right or at the left first? Write left or right. right

A

13 ¢
25 ¢
40 ¢
78 ¢

Add 0 and 0 first. Think, "0 and 5 are 5."

Now add the 5 that you got to 34. Think, "5 and 34 are 84."

84 is written under the first column.

Now add in the next column. Think, "4 and 24 are 64."

Next add the 6 you got to the next number. Think, "6 and 12 are 78."

78 is written under this column.

Joe had 78¢ in his bank.

3. Dick had two banks. He had 31¢ in one of his banks and 67¢ in the other. How much money did he have in both banks?

What numbers do you add to get the answer? 31¢ and 67¢
Write the numbers one under the other in Box B.
Now add. You should get 98¢ for your answer.

B
31¢
+67¢
98¢

Look at the six self-help examples below. Copy all of them without the answers. There is room to copy them below the boxes. Cover the examples with paper so that you cannot see the answers. Add in the examples you copied. Then look to see if your work is correct. Find any mistakes you may have made.

C
24
44
10
78

D
31
64
95

E
65
10
14
89

F
20
32
47
99

G
23
13
36

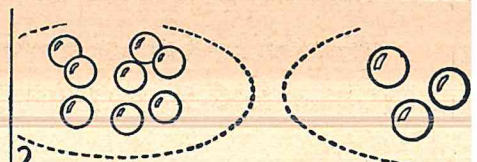
H
30
54
12
96

Copy Examples C to H here. Do not copy the answers.

You are now ready to work examples like these without help. Add in each example below.

35 40 75	25 51 77	32 31 63	50 47 97	32 43 75	32 12 44	70 20 90	31 28 59
13 41 24 78	64 34 98	24 53 12 89	60 14 12 86	10 52 20 82	27 52 79	11 43 42 96	10 32 53 95
22 16 11 49	30 24 43 7	20 60 10 90	10 15 64 89	23 42 23 88	52 30 14 96	10 41 34 85	21 20 47 88

1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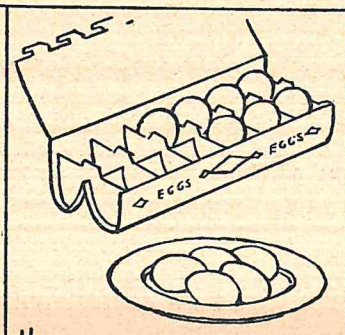

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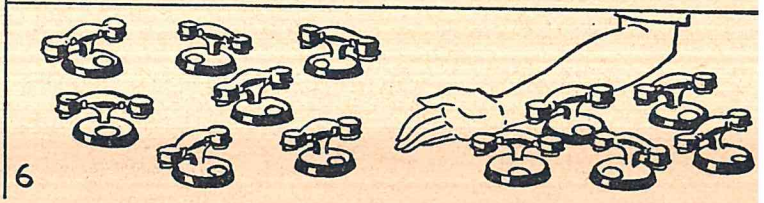

6

1. Henry and Tom have 8 marbles in one ring and 3 marbles in another ring. How many marbles do they have in both rings?

Picture 2 goes with Problem 1.
Examples E and F go with this problem. The answer is 11 marbles.

2. Jane found 11 of the pieces to her puzzle, and Mary found 8. How many more pieces did Jane find than Mary?

Picture 5 and Example G go with Problem 2. The answer is 3 pieces.

3. Bobby bought 12 one-cent stamps and 7 three-cent stamps. How many more one-cent stamps did he buy than three-cent stamps?

Picture 1 and Example C go with Problem 3. The answer is 5 more one-cent stamps.

4. Susan has put 7 eggs in a box. She has 5 more eggs to put in the box. How many eggs does she have in all?

Picture 4 goes with Problem 4.
Examples A and B go with this problem. The answer is 12 eggs.

A	B	C	D	E	F	G	H
7 +5 = 12	5 +7 = 12	12 −7 = 5	12 −5 = 7	3 +8 = 11	8 +3 = 11	11 −8 = 3	11 −3 = 8
4	4	1		2	2	5	2

Under each example above write the number of the picture that goes with it.

Learn the examples above. Then write the answers for the examples below.

8 +3 = 11	12 −7 = 5	9 +6 = 15	7 +4 = 11	9 +2 = 11	11 −7 = 4	15 −9 = 6	7 +5 = 12	3 +8 = 11	11 −3 = 8
11 −8 = 3	6 +9 = 15	4 +8 = 12	5 +7 = 12	11 −4 = 7	18 −9 = 9	11 −6 = 5	15 −6 = 9	4 +7 = 11	12 −5 = 7

Nancy needs 36 cookies for her party. On Thursday she made 21 cookies. How many more cookies should she make?

Example A shows you how to subtract to get the answer. Begin to subtract in the column at the right.
1 from 6 is 5. The 5 is written in the answer.
Now subtract in the next column. 2 from 3 is 1. The 1 is written in the answer.

Nancy should make 15 more cookies.

A
36
21
15

Now study Example B. It shows how to subtract 30 from 95.
What numbers do you subtract first? 0 from 5 is 5.
What do you write in the answer? 5
What numbers do you subtract next? 3 from 9 is 6.
What do you write in the answer? 65

B
95
30
65

Look at the self-help examples below. Copy them without the answers. Cover the examples so that you cannot see the answers. Then **subtract.** Correct any mistakes you may make.

C
57
42
15

D
93
60
33

E
86
16
70

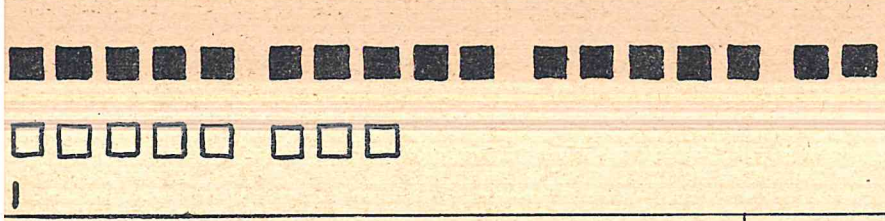
F
76
14
62

G
89
52
37

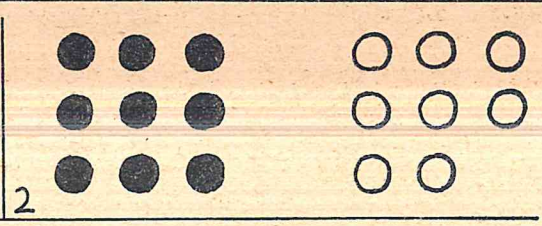
H
90
40
50

Subtract in each example below.

64 21 43	88 68 20	95 32 63	86 20 66	84 31 53	73 43 30	87 22 65	70 30 40
97 76 21	64 14 50	97 25 72	68 35 33	96 42 54	47 27 20	59 41 18	75 13 62
60 50 10	57 31 26	85 22 63	67 42 25	96 45 51	39 16 23	72 20 52	42 30 12



1



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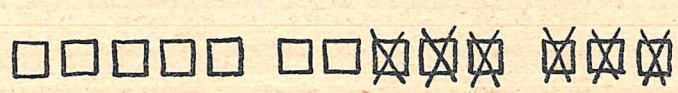

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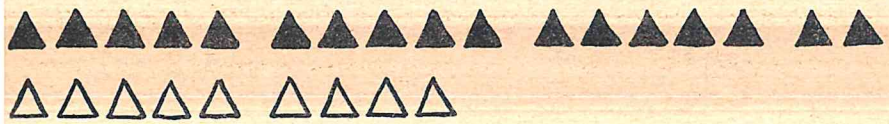


5

6

1. Henry made 17 black squares and 8 white squares. How many more black squares than white squares did he make?

Picture 1 and Example C go with Problem 1. The answer is 9 more black squares.

2. Susan made 7 black stars and 6 white stars. How many stars did she make?

Picture 6 goes with Problem 2. Examples E and F go with this problem. The answer is ___ stars.

3. Jack made 9 black circles and 8 white circles. How many circles did he make?

Picture 2 goes with Problem 3. Examples A and B go with this problem. The answer is 17 circles.

4. Mary made 13 white circles. Then she crossed out 7 of them. How many circles did she have left?

Picture 3 and Example D go with Problem 4. The answer is 6 circles.

A	B	C	D	E	F	G	H
9 +8 = 17	8 +9 = 17	17 −8 = 9	17 −9 = 8	7 +6 = 13	6 +7 = 13	13 −6 = 7	13 −7 = 6
2	2	1	5	6	6	6	3

Under each example above write the number of the picture that goes with it.

Learn the examples above. Then write the answers for the examples below.

6 +7 = 13	17 −8 = 9	11 −3 = 8	3 +8 = 5	12 −7 = 5	16 −8 = 8	0 +7 = 7	5 +7 = 12	13 −7 = 6	8 +3 = 11
12 −5 = 7	9 +8 = 12	7 +6 = 1	10 −2 = 8	17 −9 = 8	13 −6 = 7	4 +6 = 10	11 −8 = 3	8 +9 = 17	7 +5 = 12

1

2

3

Jane made a cake. She had a book that told her how. The book told her to use 2 cupfuls of milk. Jane had 1 pint of milk. When she measured the milk, she had just enough.

2 cupfuls = 1 pint

There are 2 pints in 1 quart.

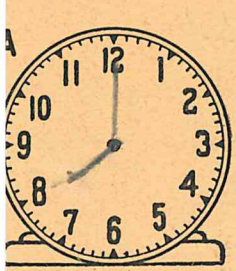
There are 4 cupfuls in 1 quart.

Write the missing numbers and words:

1. 2 pints = 4 cupfuls
2. 4 pints = 8 cupfuls
3. 1 quart and 1 pint and 1 cupful = 7 cupfuls
4. 1 quart and 1 pint = 3 pints
5. 2 quarts = 4 pint
6. 1 dozen things = 12 things
7. 1 foot = 12 inches
8. Which is longer, a board 2 feet long or a stick 13 inches long? 2 Feet
9. You are about 4 feet tall.
10. 9 eggs and 3 eggs = 11 dozen eggs
11. Are 2 inches and 9 inches less than 1 foot? no
12. Are 2 cupfuls and 1 pint equal to 1 quart? 3
13. 5 dozens and 7 dozens = 12 dozens
14. Can a stick 13 inches long be cut into two pieces, one 9 inches long and the other 7 inches long? no

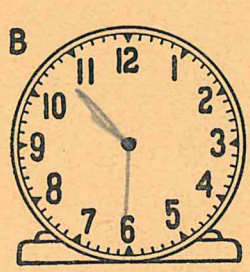
Look at the time under each of the clocks below. Put hands on each clock to show that time.

A



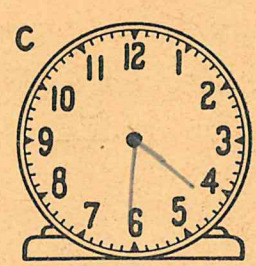
8 o'clock

B



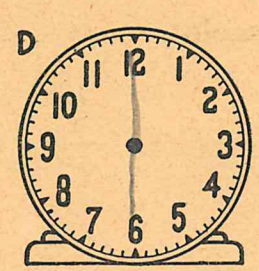
Half-past 10

C



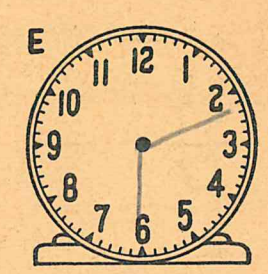
Half-past 4

D

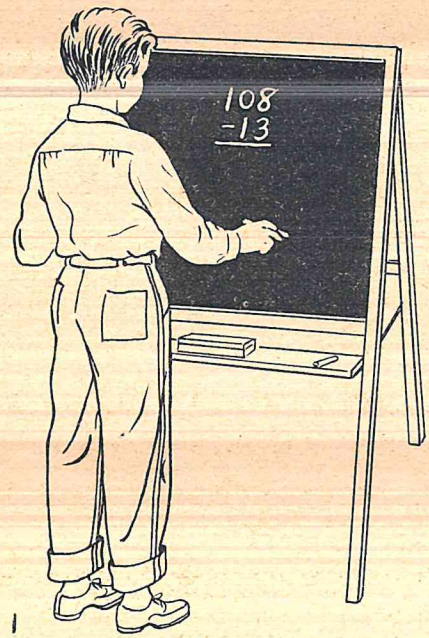


6 o'clock

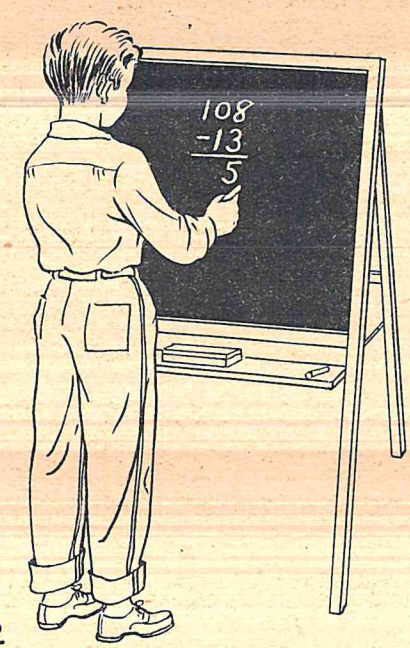
E



Half-past 2



1



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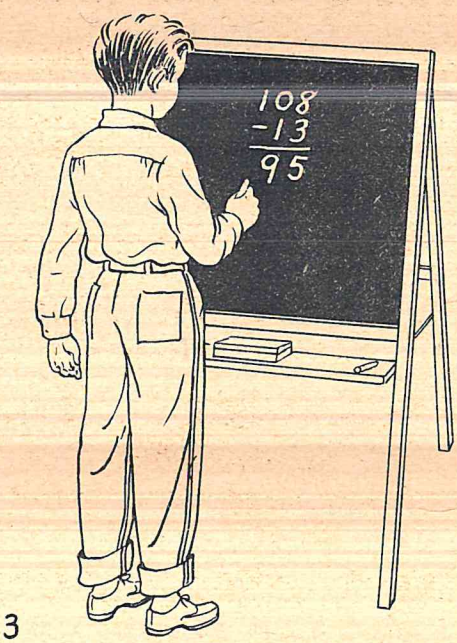


3

Joe and his brother sold newspapers one day. They started with 108 papers. When they came home, they had 13 papers left. How many had they sold?

Joe subtracted to get the answer.

Picture 1 shows how he wrote 13 under 108 to subtract.

In Picture 2 he subtracted 3 from 8. He wrote the 5 under the 3.

In Picture 3 he subtracted 1 from 10. He wrote 9 in the second column of his answer.

Joe had sold 95 newspapers.

Look at the self-help examples below. Copy them without the answers. Cover the examples so that you cannot see the answers. Then subtract. Correct any mistakes you make.

A	B	C	D	E	F
185 -90 95	127 -57 70	118 -71 47	107 -43 64	154 -93 61	177 -85 92

Subtract in each example below.

158 66 92	179 99	137 60	118 84	129 58	135 75	108 63
114 40	126 75	119 35	178 80	122 92	106 34	118 47

Write the answers:

1.

6	5	11	4	9	11	15	7	11	13
+9	+7	−3	+7	+8	−8	−9	+5	−7	−6
15	12	9	11	17	3	6	12	4	7

2.

15	8	7	0	10	17	7	12	1	9
−6	+9	+6	+6	−6	−9	+4	−5	+0	+6
9	17	13	6	4	8	11	7	1	15

3.

3	9	17	11	12	8	6	5	12	13
+8	−9	−8	−4	−7	+3	+7	+4	−8	−7
11	0	9	7	5	11	13	9	4	6

Add in each example:

4.

8	8	7	6	5	3	7	8	9	0
3	4	4	0	1	7	2	0	3	1
0	5	2	9	6	1	2	0	3	5
11	17	13	15	12	11	11	8	15	6

5.

7	9	6	4	4	9	3	3	3	2
2	3	5	2	3	0	1	5	8	0
3	5	2	4	1	1	2	3	1	3
12	17	13	10	8	10	6	11	12	5

Add in each example:

6.

41	47	34	23	20	23	41
40	12	25	46	50	60	32
81	59	59	69	70	83	73

Subtract in each example:

7.

165	158	99	176	54	157	139
85	92	60	93	31	66	70
80	66	39	83	23	91	69

Write the answers:

8.

118	67	53	128	22	85	64
−78	−41	+43	−60	+30	+12	+35
40	26	96	68	52	97	39

107	21	63	106	117	159	134
−94	+47	+31	−46	−32	−94	−64
13	68	94	60	85	65	70

For each problem below write an example. Write it in the box. Then find the answer.

Always think whether your answer should be larger or smaller than a number in the problem. Then decide whether you should add or subtract.

1. Jane read 8 pages in her book on Monday, 4 pages on Tuesday, and 5 pages on Wednesday. How many pages did she read on those three days?

Use Box 1. The answer is 17 pages.

1
8
4
+5
17

2. For their show the children used 42 chairs from their room and 35 chairs from Room 4. How many chairs did they use in all?

Use Box 2. The answer is 77 chairs.

2
42
+35
77

3. Bobby found an old rope 85 feet long. He used 23 feet of this rope to put up pictures. How many feet of the rope did he have left?

Use Box 3. The answer is 62 feet of the rope.

3
85
−23
62

4. Betty's score at darts was 17 points. Mary's score was 5 points. How many more points did Betty make than Mary?

Use Box 4. The answer is 12 more points.

4
17
−5
12

5. Henry's new story book has 188 pages. Jack's new book has 96 pages. How many fewer pages does Jack's new book have than Henry's?

Use Box 5. The answer is 72 fewer pages.

5
188
−96
72

6. Nancy saves old coins. She has 8 old quarters, 3 old dimes, and 6 old pennies. How many old coins does she have?

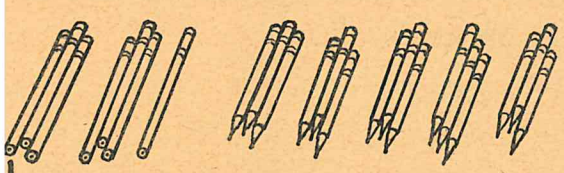
Use Box 6. The answer is 17 old coins.

6
8
3
+6
17

7. Joe has a box with 172 red marbles in it and another box with 90 blue marbles in it. How many more blue marbles must he get so that he will have as many of them as he has red marbles?

Use Box 7. The answer is 82 more blue marbles.

7
172
−90
82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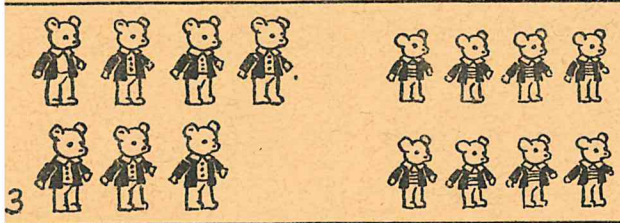
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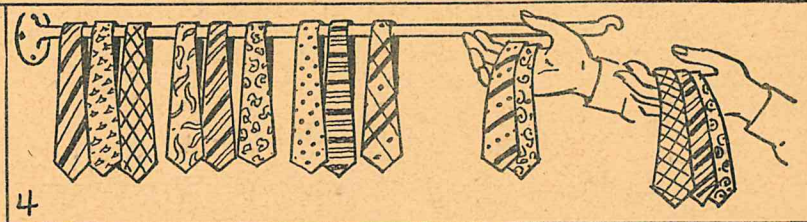
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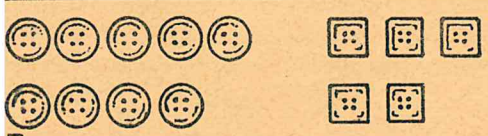

5

6

1. The girls were playing with 8 little toy bears and 7 big toy bears. How many bears were they playing with altogether?

Picture 3 goes with Problem 1.
Examples e and f go with this problem. The answer is 15 bears.

2. In his pencil box Jack has 7 new pencils and 15 old ones. How many more old pencils than new pencils has he?

Picture 1 and Example G go with this problem. The answer is 8 more old pencils.

3. Jane was saving buttons. She saved 9 round buttons and 5 square buttons. Jane saved how many buttons?

Picture 5 goes with Problem 3.
Examples a and B go with this problem. The answer is 14 buttons.

4. The store man had 15 toy horses. He put ribbons on 8 of the horses. How many more horses needed ribbons?

Picture 2 and Example H go with this problem. The answer is 7 toy horses.

A	B	C	D	E	F	G	H
5 +9 = 14	9 +5 = 14	14 −5 = 9	14 −9 = 5	7 +8 = 15	8 +7 = 15	15 −7 = 8	15 −8 = 7
5	5	4	6	3	3	1	2

Under each example above write the number of the picture that goes with it.

Learn the examples above. Then write the answers for the examples below.

8 +9 =	14 −5 = 9	7 +8 = 15	9 +5 = 14	7 +6 = 13	14 −9 = 5	8 +7 = 15	13 −7 = 6	6 +7 = 13	15 −7 = 8
17 −9 = 8	1 −0 = 1	9 +8 = 17	15 −8 = 7	4 +7 = 11	12 −7 = 5	5 +9 = 14	17 −8 = 9	13 −6 = 7	8 +3 = 11

Tom is putting all the pictures of his friends and their pets in his new picture book. He has put 73 pictures in it and has 56 more. How many pictures does he have in all?

Example A shows how to write the numbers so that you can add them to get the answer.

First add 6 and 3. Write 9.
Next add 5 and 7. Write 12 at the left of the 9.
The answer is 129 pictures in all.

A

$$\begin{array}{r} 73 \\ 56 \\ \hline 129 \end{array}$$

What numbers do you add first in Example B? 5 and 2
What number do you write? 7.
Where do you write it? Under 2
What numbers do you add next? 4 and 6
You write 1 at the left of the 10.

B

$$\begin{array}{r} 45 \\ 62 \\ \hline 107 \end{array}$$

Look at the self-help examples below. Copy them without the answers. Cover the examples so that you cannot see the answers. Then add. Correct any mistakes you make.

C

$$\begin{array}{r} 82 \\ 94 \\ \hline 176 \end{array}$$

D

$$\begin{array}{r} 72 \\ 43 \\ \hline 115 \end{array}$$

E

$$\begin{array}{r} 90 \\ 55 \\ \hline 145 \end{array}$$

F

$$\begin{array}{r} 74 \\ 85 \\ \hline 159 \end{array}$$

G

$$\begin{array}{r} 90 \\ 59 \\ \hline 149 \end{array}$$

H

$$\begin{array}{r} 73 \\ 64 \\ \hline 137 \end{array}$$

Add in each example below.

91 61 152	51 70 121	70 36 106	24 34 58	81 75 96	62 72 134	20 68 88	34 81 115
72 53 125	91 27 118	53 96 149	50 54 104	31 37 68	98 81 179	71 41 112	65 43 108
16 93 109	65 43 108	82 76 158	97 52 149	42 72 114	20 57 77	51 94 145	83 34

Picture 1 above shows Dick at the store. He bought a top for 13¢ and gave the store man a quarter.

In Picture 2 the store man is giving Dick a penny. The store man said "13¢" because the top cost 13¢. And then he gave Dick a penny and said, "13¢ and 1¢ make 14¢. . . . "

Picture 3 shows the store man putting down another penny and saying, "and 1¢ make 15¢. . . . "

In the last picture the store man is putting down a dime. He says, "and 10¢ more make 25¢."

When June went to the store and bought some writing paper that cost 7¢, she gave the store man a quarter.

The pictures below show the coins the store man gave her in change. He said the paper cost 7¢. Then he gave her the first penny and said, "8¢." So 8¢ is written under the coin.

When he gave her the next penny, he said, "_____." Write what he said under the coin.

1. Now on the line under each of the other coins write what he said when he gave it to June.

8¢ 9¢ 10¢ 20¢ 25¢

2. Jack bought an apple for 2¢. He gave the man a dime. Look at the coins below. Cross out the coins that are not needed for his change.

3. Sam gave the man at the store 50¢ for a 28¢ kite. Look at the six coins below. Cross out the ones that the store man does not need for change.

29

30

____

40

50

____

4. Now write on the line under each coin what the store man would say as he gave it to Sam.

5. Susan bought a can of pumpkin for 17¢. She gave the store man a quarter for it. There is a ring below for each coin that he gave her in change. Mark each ring to show whether it is a penny, nickel, or dime. The first one is marked for you.

15

19

20

25

6. Under each coin above write the number the store man said when he gave it to Susan.

7. Nancy bought three loaves of bread for 36¢, and gave the store man 50¢. He gave her 5 coins in change. Mark the rings below to show what coins he gave her.

37

38

39

40

50

8. Under each coin above write the number the store man said when he gave it to Nancy.

Jane counted the jars of fruit that her mother had left. She counted 13 quart jars, 21 pint jars, and 35 very small jars. How many jars did she count in all?

You should add to get the answer.

Example A at the right shows how to write the numbers.

First add ___ and ___. Remember ___.
Now add ___ and ___. Write ___.
Next add ___ and ___. Remember ___.
Now add ___ and ___. Write ___.
The answer is ___ jars in all.

A
13
21
35
69

Look at the self-help examples below. Copy them without the answers. Cover the examples so that you cannot see the answers. Then add. Correct any mistakes you make.

B
35
11
30
76

C
32
4
42
78

D
55
60
14
129

E
2
92
93
187

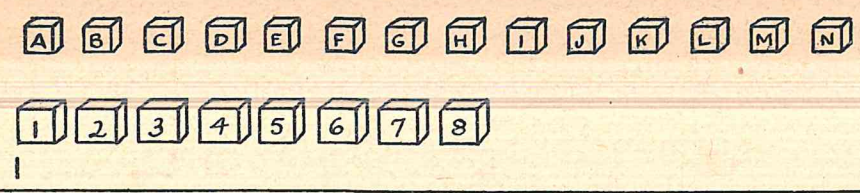
F
60
12
23
95

G
70
82
2
154

(2)

Now add in the examples below.

96	51	76	81	32	5	32	22
41	13	2	72	14	40	33	3
41	20	40	5	63	60	51	44
178	84	118	178 ✓	109	105	116	69
20	93	41	6	72	11	71	7
4	44	23	62	21	60	55	40
20	11	43	91	34	23	10	22
44	148	67 ✓	159	127	94	136	69
10	54	90	61	2	80	93	82
3	32	30	3	51	75	21	60
96	12	28	94	2	4	44	36
109	98	148	158	55	159	158	178



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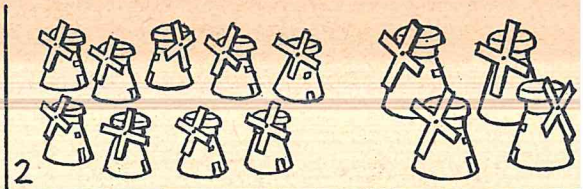
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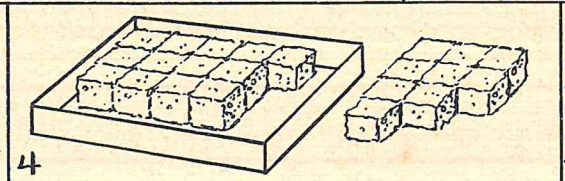
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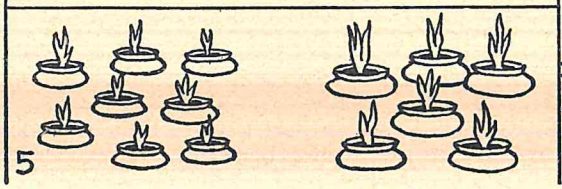
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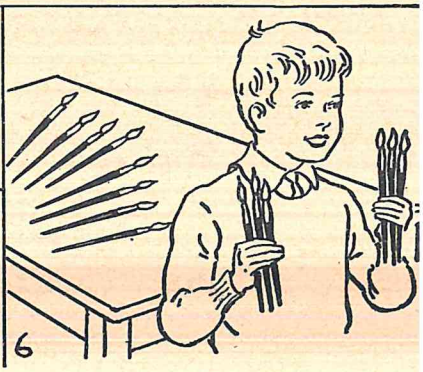

6

1. On a table at school there were 14 brushes for the boys to paint with. Tom took 6 of the brushes. How many brushes were left?

Picture ___ and Example ___ go with Problem 1. The answer is ___ brushes.

2. At school there were 8 plants in small bowls and 6 plants in large bowls. In all how many plants were there in these bowls?

Picture ___ goes with Problem 2.

Examples ___ and ___ go with this problem. The answer is ___ plants.

3. For a party June had 13 lumps of sugar in a box and 9 lumps on the table. How many fewer lumps were on the table than in the box?

Picture ___ and Example ___ go with this problem. The answer is ___ fewer lumps.

4. Jack makes toy windmills. He made 9 small windmills and 4 large windmills. How many windmills did he make?

Picture ___ goes with Problem 4.

Examples ___ and ___ go with this problem. The answer is ___ windmills.

A	B	C	D	E	F	G	H
4 +9 = 13	9 +4 = 13	13 −4 = 9	13 −9 = 4	6 +8 = 14	8 +6 = 14	14 −8 = 6	14 −6 = 8
___	___	___	___	___	___	___	___

Under each example above write the number of the picture that goes with it.

Learn the examples above. Then write the answers for the examples below.

4 +9	15 −8	8 +7	13 −4	9 +4	1 −1	5 +7	13 −9	9 +5	15 −7
6 +8	2 −0	3 +8	14 −8	7 +8	14 −9	8 +6	14 −6	5 +9	14 −5

Look at Examples A, B, and C. The sum for each of the examples ends in 7. It is easy to add 23 and 4. You know that the sum ends in 7. So the answer is 27.

To add 33 and 4, think, "The sum ends in 7. So the answer is 37."

A $\begin{array}{r} 4 \\ 3 \\ \hline 7 \end{array}$ B $\begin{array}{r} 4 \\ 13 \\ \hline 17 \end{array}$ C $\begin{array}{r} 4 \\ 23 \\ \hline 27 \end{array}$

1. When you add 43 and 4, the sum ends in ____. The sum is ____.
2. When you add 21 and 5, the sum ends in ____. The sum is ____.
3. When you add 37 and 2, the sum ends in ____. The sum is ____.
4. When you add 10 and 8, the sum ends in ____. The sum is ____.

5. Add each of the numbers below to 14. Write the answer on the line under each number. The first answer is written for you.

2	0	1	5	4	3
16	14	15	19	18	17

6. Add each number below to 20. Write the answer on the line under each number.

5	7	0	4	9	1	2	3	6	8
25	27	20	24	29	21	22	23	26	28

7. Add each number below to 15. Write the answer on the line under each number.

4	0	1	3	2
19	15	16	18	17

8. Add each number below to 12. Write the answer on the line under each number.

6	7	0	2	5	4	1	3
18	18	12	14	17	16	13	15

9. Add each number below to 23. Write the answer on the line under each number.

2	5	6	0	3	1	4
25	28	29	23	26	24	27

Bobby and Betty are playing a dart game. Betty's darts are on the numbers 5, 7, and 4. What is her score?

A
5
7
4
16

To find her score, you must add 5, 7, and 4. Example A shows how to add.

First add 4 and ____. Think ____.

Next add ____ and 5. The sum will end in ____. The sum is ____.

Betty's score is ____.

When Bobby had his turn, his darts went on the numbers 8, 7, and 3. What was his score?

Do your work in the box at the right.

B

His score was ____. Did Bobby win the game? ____

Look at the self-help examples below. Copy them without the answers. Cover the examples so that you cannot see the answers. Then add. Correct any mistakes you make.

C
2
8
6
16

D
9
5
5
19

E
1
4
9
14

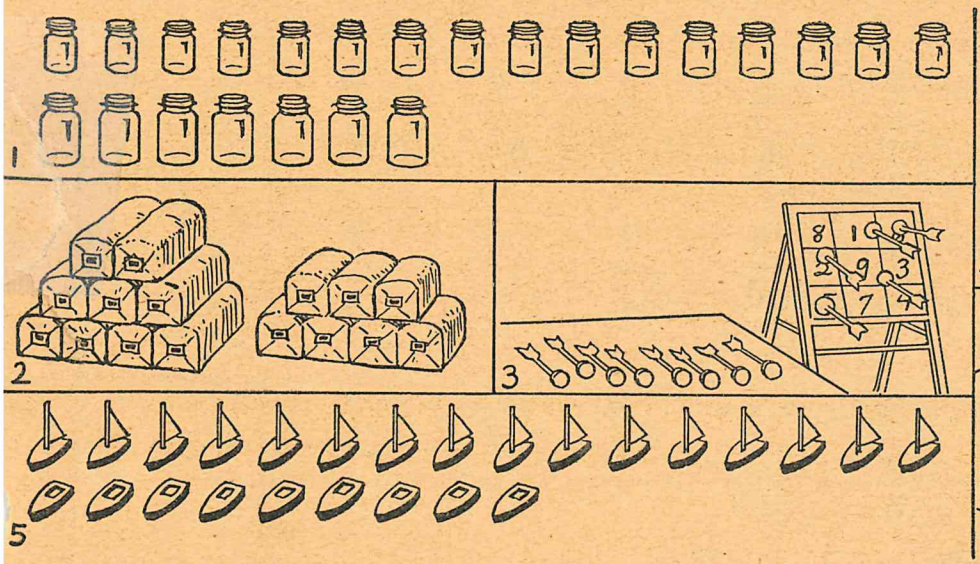
F
3
8
7
18

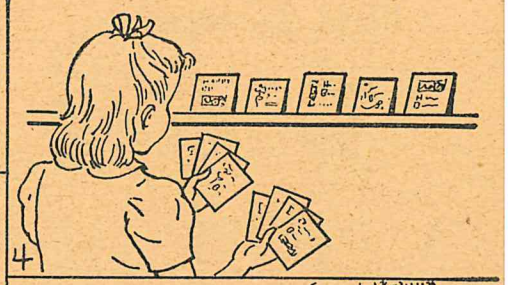
G
4
2
9
15

H
2
9
6
17

Add in the examples below.

5	6	5	6	4	2	5	6	7	4
6	7	3	2	7	8	4	8	5	6
6	6	9	8	7	6	9	3	5	8
___	___	___	___	___	___	___	___	___	___
5	9	1	2	3	2	8	0	1	5
9	0	5	3	7	2	6	9	9	6
4	5	9	7	8	4	5	4	9	8
___	___	___	___	___	___	___	___	___	___
6	6	1	2	6	2	4	7	3	5
0	5	7	9	4	8	5	0	4	6
7	7	3	8	9	8	5	5	6	7
___	___	___	___	___	___	___	___	___	___





1. Jane was playing darts. She had 5 darts on the board and 8 more to throw. How many did she have altogether?

Picture ____ goes with Problem 1.

Examples ____ and ____ go with this problem. The answer is ____ darts.

2. Nancy looked at 13 cards at the store. She bought 8 of them. How many of the cards were left?

Picture ____ and Example ____ go with this problem. The answer is ____ cards.

3. The store man had 9 large loaves of bread and 7 small loaves. How many loaves of bread did he have in all?

Picture ____ goes with Problem 3.

Examples ____ and ____ go with this problem. The answer is ____ loaves.

4. Betty's mother had 16 pint jars and 7 quart jars. How many more pint jars did she have than quart jars?

Picture ____ and Example ____ go with this problem. The answer is ____ pints.

A	B	C	D	E	F	G	H
7 +9 = 16	9 +7 = 16	16 −7 = 9	16 −9 = 7	5 +8 = 13	8 +5 = 13	13 −5 = 8	13 −8 = 5
____	____	____	____	____	____	____	____

Under each example above write the number of the picture that goes with it.

Learn the examples above. Then write the answers for the examples below.

9 +4 =	13 −9 =	7 +9 =	16 −7 =	16 −9 =	5 +9 =	9 +7 =	14 −5 =	7 +8 =	13 −5 =
5 +8 =	14 −9 =	8 +5 =	14 −8 =	13 −8 =	4 +9 =	6 +8 =	14 −6 =	8 +6 =	13 −4 =

Write the answers:

1.

5	15	13	7	14	4	14	9	5	8
+9	−7	−9	+8	−6	+9	−5	+7	+8	+7
14	8	4	15	8	13	9	16	13	15

2.

13	14	16	8	9	8	3	9	17	8
−4	−8	−7	+1	+5	+6	−3	+9	−9	+5
9	6	9	9	14	14	0	18	8	13

3.

16	4	13	12	13	9	6	7	14	15
−9	+7	−8	−4	−5	+4	+8	+9	−9	−8
7	11	5	8	8	13	14	16	5	7

Add in each example below.

4.

32	90	22	73	84	54	83	32
93	80	87	55	94	52	42	71
135	170	109	128	178	106	125	103

Write the sums:

5.

22	5	31	61	52	70	83	25
42	31	42	11	13	4	33	3
14	70	42	57	64	45	3	91
78	106	115	129	129	119	119	119

Write the sums:

6.

7	1	6	3	3	3	4	8	3	7
6	6	4	7	6	6	7	9	5	4
5	3	8	2	4	9	6	2	6	6
18	10	18	13	13	18	17	19	13	17

Subtract in each example:

7.

138	86	162	158	165	139	186
54	30	72	77	92	83	95
84	56	90	81	73	56	91

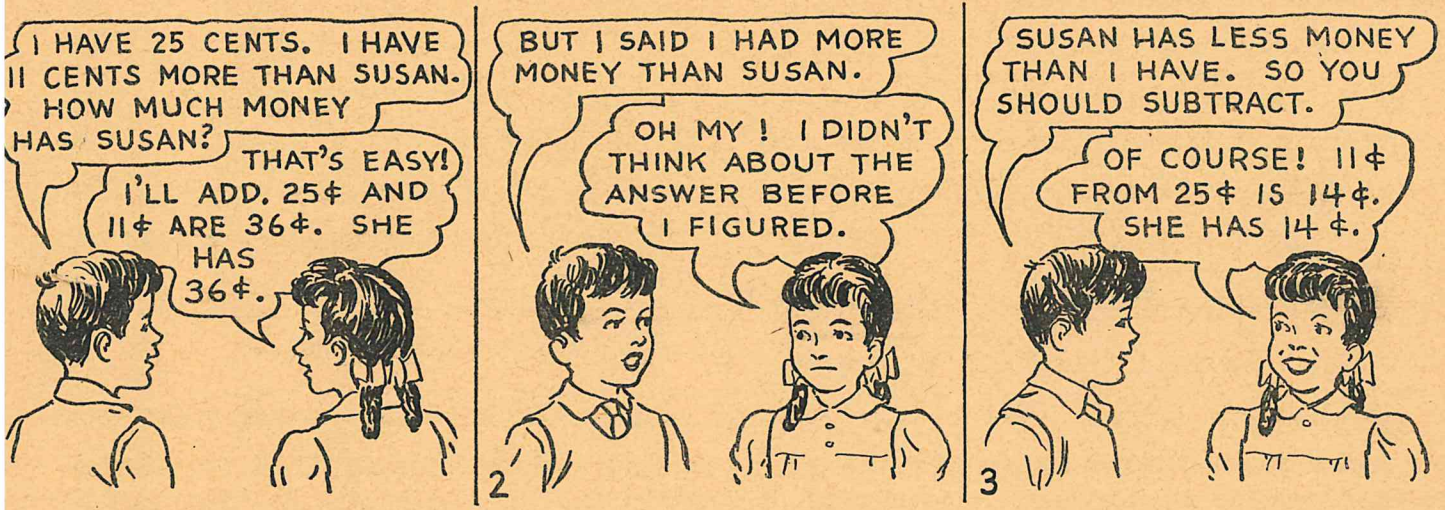
Write the answers:

8.

3	52		21			4
5	32	145	56	149	92	5
3	24	−73	40	−67	+10	2
11	108	72	117	82	82	11

9.

159	167	10	3	137	119	101
−89	−73	2	0	−80	−82	−61
70	94	23	7	57	37	40
		35	10			


I HAVE 25 CENTS. I HAVE 11 CENTS MORE THAN SUSAN. HOW MUCH MONEY HAS SUSAN?
THAT'S EASY! I'LL ADD. 25¢ AND 11¢ ARE 36¢. SHE HAS 36¢.
BUT I SAID I HAD MORE MONEY THAN SUSAN.
OH MY! I DIDN'T THINK ABOUT THE ANSWER BEFORE I FIGURED.
2
SUSAN HAS LESS MONEY THAN I HAVE. SO YOU SHOULD SUBTRACT.
OF COURSE! 11¢ FROM 25¢ IS 14¢. SHE HAS 14¢.
3

The pictures tell how Jane made a mistake in answering the problem Jack gave her. She did not think about her answer before she did her figuring. If she had thought about her answer, she would have subtracted the first time.

Think about your answers before you do any figuring in the problems on this page and on the next page.

1. Nancy gave the store man 21¢ for some oranges and 5¢ for an apple. How much did she give him altogether for the oranges and apple?

The answer is 26¢.

2. Sam, Jane, and Bobby were going to give a party. Sam asked 5 children, Jane asked 2 children, and Bobby asked 6 children. How many children did they ask altogether?

The answer is 13 children.

3. Jane brought 24 pieces of candy for the party. Bobby brought 12 pieces of candy. How many fewer pieces of candy did Bobby bring than Jane?

The answer is 45 pieces.

4. Tom was working a puzzle with 116 pieces in it. In an hour he had put 35 pieces together. How many more pieces did he have to put together?

The answer is 151 pieces.

5. One day Joe put 74 apples in a box. He had 13 apples left over. How many apples did Joe have in all?

The answer is 87 apples.

6. One day the boys counted the marbles they had. Jack had 15 marbles, Sam had 31, and Dick had 22. How many marbles did the boys have in all?

The answer is 68 marbles.

7. Sally wanted to write 185 names in two columns on a piece of paper. She wrote 94 names in the first column. How many names did she have to write in the second column?

The answer is 299 names.

8. Nancy worked 54 examples on one page and 65 examples on another page. How many examples did she work on both pages?

The answer is 119 examples.

9. In a dart game Sam made a score of 53 points, Joe made a score of 22 points, and Bobby made a score of 33 points. How many points did the boys make altogether?

The answer is 108 points.

10. Betty and Jane were each saving pictures of animals. Betty saved 118 pictures, and Jane saved 62 pictures. How many more pictures did Betty save than Jane?

The answer is 56 pictures.

11. Miss Brown gave the children some colored paper for pictures. She gave them 34 pieces of red paper, 30 pieces of blue paper, and 45 pieces of yellow paper. How many pieces of colored paper did Miss Brown give them?

The answer is 109 pieces.

12. Joe found two boards to use as stilts. One board was 6 feet long, and the other board was 8 feet long. How many feet should he have cut from the long board to make the two boards the same size?

The answer is 2 feet.

13. Sally's mother bought some new dishes. The dishes came in two boxes. There were 40 dishes in one box and 60 dishes in the other box. How many dishes did she buy?

The answer is 100 dishes.

14. Last week Bobby saw a big toy airplane that he wanted. It cost 98¢. He bought it on sale this week for 75¢. How much money did he save by buying it at the sale?

The answer is 23¢.

Subtract in each example below.

169 − 96 = 73	148 − 88 = 60	74 − 50 = 24	138 − 95 = 43	118 − 51 = 67	154 − 82 = 72	100 − 10 = 90
133 − 50 = 83	169 − 73 = 96	107 − 76 = 31	78 − 34 = 44	137 − 47 = 90	168 − 96 = 72	159 − 72 = 87

Write the answer for each example below.

9 + 0 + 7 = 16	83 + 61 + 33 = 177	109 − 94 = 15	95 + 43 = 52	136 − 56 = 80	141 − 91 = 50	10 + 22 + 45 = 77
7 + 5 + 2 = 14	125 − 31 = 94	91 − 70 − 21 = 182	4 + 91 + 42 = 7	112 − 90 = 32	144 − 63 = 81	107 − 42 = 65

Look at Example A. 8 plus 7 is 15. 15 ends in 5. So you know that the sum of 18 and 7 ends in 5.

You know that the sum of 18 and 7 cannot be 15. It is the next number larger than 18 that ends in 5. So it must be 25.

A
7
18
25

Now look at Example B. 3 plus 9 is ____. 12 ends in ____.

The sum of 13 and 9 ends in ____. It is the next number larger than ____ that ends in ____. The sum is ____.

B
9
13

1. When you add 25 and 8, the sum ends in ____. The sum is the next number larger than ____ that ends in ____. The sum is ____.

2. When you add 19 and 4, the sum is the next number larger than ____ that ends in ____. The sum is ____.

3. When you add 36 and 5, the sum is the next number larger than ____ that ends in ____. The sum is ____.

4. Add each of the numbers below to 17. Write the answer on the line under each number. The first answer is written for you.

9	7	1	5	8	0	2	4	6	3
26	24	18	22	25	17	19	21	23	20

5. Add each number below to 24. Write the answer on the line under each number.

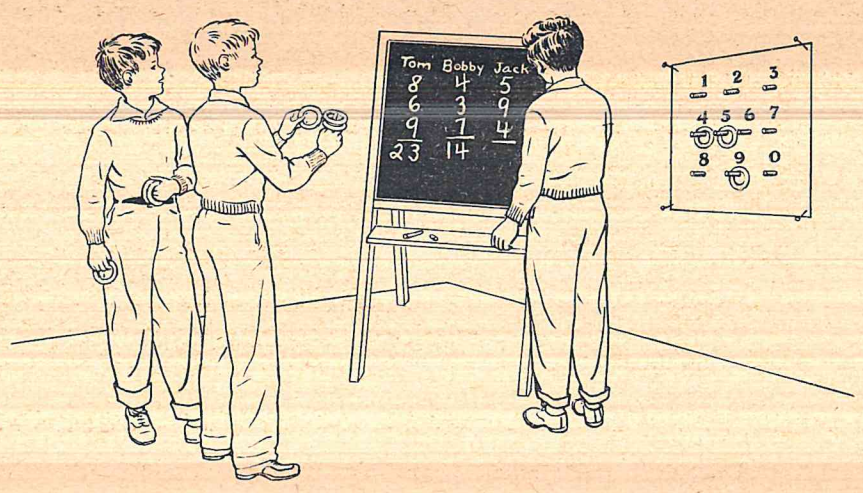
1	5	3	9	7	0	2	8	6	4
25	29	27	23	31	24	26	34	30	28

6. Add each number below to 19. Write the answer on the line under each number.

5	7	0	2	6	1	9	3	8	4
24	26	19	21	25	20	28	22	27	23

Write the sums:

7. $38 + 9 = 47$
8. $21 + 9 = 30$
9. $13 + 7 = 20$
10. $35 + 6 = 41$
11. $16 + 7 = 23$
12. $14 + 5 = 19$
13. $23 + 9 = 32$
14. $37 + 8 = 45$
15. $18 + 4 = 22$
16. $25 + 7 = 32$
17. $32 + 8 = 40$
18. $26 + 7 = 33$



Tom, Bobby, and Jack are playing ring toss. The picture shows how they added to find their scores.

Tom first added 9 and ____. He thought, "9 and 6 are ____."

He had to remember ____.

Next he added 15 and ____.

He thought, "The sum is the next number larger than 15 that ends in ____."

His score is ____.

Bobby first added ____ and ____.

He had to remember ____.

Next he added ____ and ____. He thought, "The sum is the next number larger than ____ that ends in ____."

His score was ____.

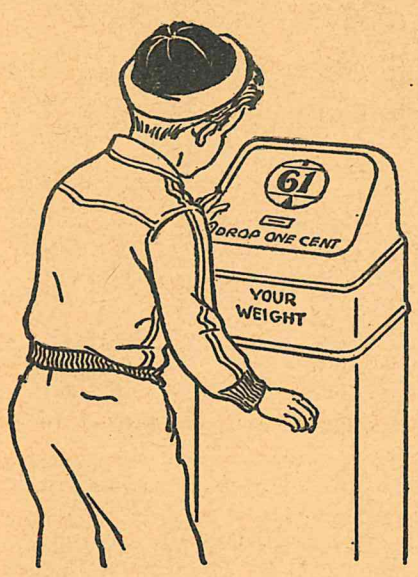
What was Jack's score? ____

Copy the self-help examples below without the answers. Then add. Correct any mistakes you make.

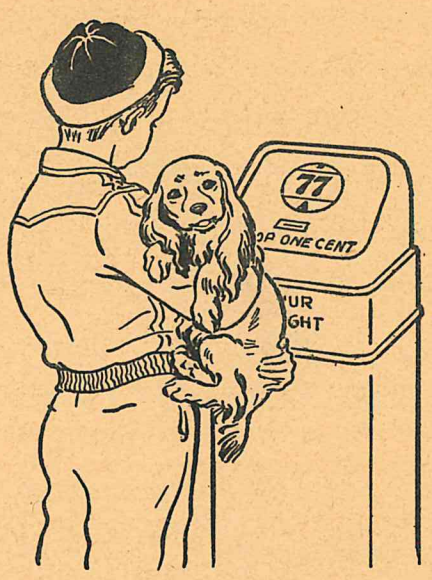
A	B	C	D	E	F
9 5 8 22	4 9 7 20	5 7 3 15	7 9 4 20	9 8 9 26	8 7 9 24

Write the sums for the examples below.

8 8 5 21	5 9 7 21	7 6 6 19	9 4 6 19	9 7 5 21	8 7 9 24	5 9 9 23	6 6 8 19	5 2 8 15	8 3 9 20
9 5 8 22	7 7 7 21	4 9 7 20	2 4 3 19	9 6 5 20	7 8 5 20	8 7 6 21	9 3 8 20	7 8 5 20	6 9 7 22



1



2

1. Picture 1 shows Joe weighing himself. In Picture 2 Joe is weighing himself and his dog. How much does the dog weigh?

Look at the pictures carefully to find the numbers that you should use.

The answer is 16 pounds.

2. Betty and two of the boys brought their pencil boxes to school one day. Betty counted her pencils and found that she had 6 pencils in the box. Billy had 8 pencils, and Dick had 8 pencils. How many pencils in all did they have in their pencil boxes?

The answer is 22 pencils.

3. Joe's father has some rabbits on his farm. He has 8 large rabbits and 36 small rabbits. In all how many rabbits does he have?

The answer is 44 rabbits.

4. Last May Sally's little brother was 44 inches tall. Now he is 46 inches tall. How many inches taller is he now?

The answer is 2 inches.

5. Monday June read 81 pages in her book. Tuesday she read 18 pages, and Wednesday she read 40 pages. How many pages did June read on the three days?

The answer is 139 pages.

6. Henry bought some stamps for his father. He bought 82 one-cent stamps and 75 three-cent stamps. How many stamps did Henry buy altogether?

The answer is 157 stamps.

7. Tom counted the children in the library one day. He counted 9 children at the big library table, 6 at the small library table, and 7 children at the shelves. How many children in all did Tom count?

The answer is 22 children.

8. Susan is saving money to buy a new picture for her room at home. The picture will cost 96¢. She has saved 62¢. How much more money does Susan need to save so that she can buy the picture?

The answer is 34¢.

Bobby and his friends are saving old paper. Bobby has saved 6 pounds of paper, Tom, 8 pounds, Joe, 9 pounds, and Henry, 5 pounds. How many pounds have the four boys saved altogether?

Example A shows how Bobby added to find out. He added **up** the column. He wrote ___ for his answer.

A
6
8
9
5
26

B
6
8
9
5
26
28

C
6
8
9
5
~~26~~
28

Now look at Example B. Bobby checked his work by adding **down** the column. He wrote ____ under 26 for his answer when he added down.

So he added **up** the column again. This time he got 28 for his answer.

Example C shows that Bobby crossed out the answer that was wrong.

How many pounds have the boys saved altogether? ____ pounds

When you add, check your work by adding **up** the column and **down** the column until you get the same answer both ways.

Look at the self-help examples below. In each example add up the column. Then add down the column. Cross out the answer that is wrong. If both answers are wrong, cross them out and write the correct answer.

D
6
7
5
5
22
23

E
2
8
3
4
19
17

F
8
4
9
6
25
30

G
6
9
8
3
20
26

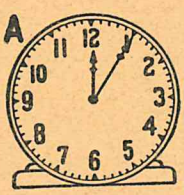
H
5
8
6
2
24
21

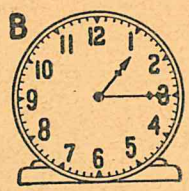
I
7
9
7
3
25
29

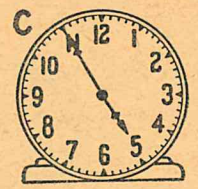
Add in each example. Add **up** the column and add **down** the column until you get the same answer both ways.

4		4	9	5	6		7	9	9
6	8	9	7	8	0	8	9	5	8
5	7	7	6	5	5	4	7	6	6
9	5	7	5	0	4	6	8	2	8
24	20	27	27	18	15	13	31	22	33

8	9			9	8	3	5	8	4
3	7	5	4	9	7	0	7	9	5
7	5	6	0	6	6	0	8	8	7
6	7	6	8	1	7	6	8	5	7
24	28	17	12	24	28	9	28	32	23

A 

B 

C 

Look carefully at Clock A. The long hand is called the **minute hand.** The short hand is called the **hour hand.**

The lines between the numbers mark the minutes. It takes the minute hand 1 minute to go from one mark to the next.

It takes 5 minutes for the minute hand to go from one number to the next.

Beginning with the number 1, count by fives to see how long it takes the minute hand to go all the way around the clock. It takes 60 minutes.

When both the minute hand and the hour hand point to 12, it is 12 o'clock.

Then when the minute hand has moved to the 1, it is 5 minutes **past** 12.

When the minute hand has moved to the 2, it is 10 minutes past 12.

Look at Clock B. When the hour hand has moved past the 1, and the minute hand points to the 3, it is 15 minutes past 1.

When the minute hand points to 1, 2, 3, 4, 5, or 6, read the time as **past** the hour. When the minute hand points to 6, it is **half** _____ the hour.

Look at Clock C. The hour hand is moving to the 5, and the minute hand points to the 11. In 5 minutes it will be 5 o'clock. It is 5 minutes **of** 5.

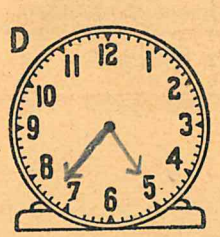
When the minute hand pointed to the 10, the time was 10 minutes of 5.

When the minute hand points to 7, 8, 9, 10, or 11, read the time as **of** the next hour.

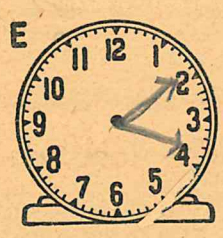
1 hour = 60 minutes

1 day = 24 hours

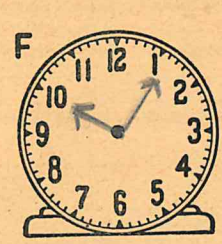
Below are ten clocks. Look at the time under each clock. Draw hands to make each clock show that time.

D 

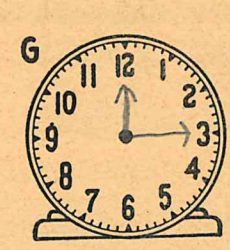
25 minutes past 7

E 

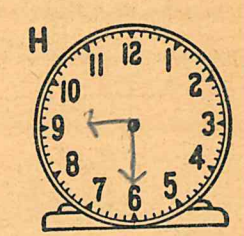
20 minutes past 2

F 

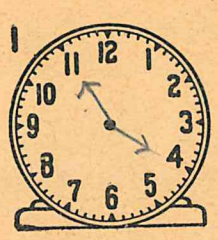
5 minutes past 10

G 

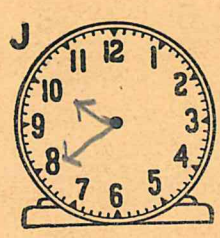
15 minutes past 12

H 

30 minutes past 9

I 

5 minutes of 4

J 

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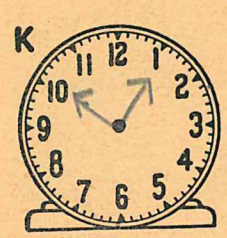
K 

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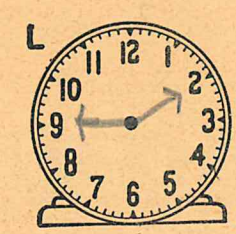
L 

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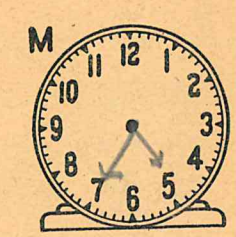
M 

25 minutes of 5

1

2

3

4

Susan was helping her father count money at his store one day. The pictures above show the money they counted.

The coin in Picture 1 is a dollar. It is the largest coin and is equal to 100 cents.

In Picture 2 there are 2 half dollars. A half dollar equals 50 cents. 2 half dollars equal 1 dollar.

Picture 3 shows 4 quarters.
4 quarters equal 1 dollar.

Picture 4 shows 10 dimes.
10 dimes equal 1 dollar.

Each picture above shows ___ dollar.

1. 1 half dollar = 5 dimes
2. 1 dollar = 100 cents
3. 2 half dollars = 1 dollar
4. 10 dimes = 1 dollar
5. 1 dollar = 4 quarters
6. 50 cents = 1 half dollar
7. 1 quarter = 5 nickels
8. 29 cents = 1 quarter and 4 cents.

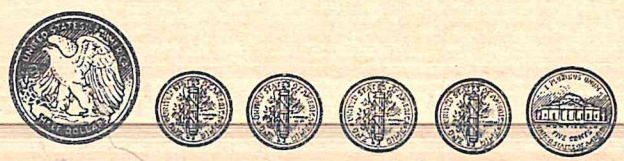
Look at the four pictures below. On the lines under each picture write the numbers you would say in counting the money in the picture. Under Picture 5 the first number is written for you.

10¢, 20, 30, 40, 45, 50, 51,

5

25, 30, 40, 50, 60, 61, 62,

6



50, 60, 70, 80, 90, 95,

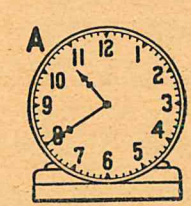
7

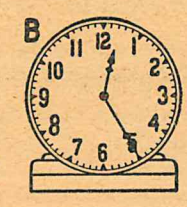
50, 50, 60, 65, 70, 71, 71,

8

Write the answers on the lines:

1. There are 30 days in April.
2. Is Wednesday the third or fourth day of the week? 4
3. There are 7 days in one week.
4. There are 12 months in a year.
5. This year has 366 days.
6. One foot and one inch are 13 inches.
7. 1 pint and 1 pint and 1 pint are 1 cupfuls.
8. 1 quart and 2 pints are 2 quarts.
9. There are 24 hours in one day.
10. The minute hand goes around the clock 24 times in one day.
11. Which is the longer time, 1 hour or 65 minutes? 65
12. 1 dollar and 2 quarters equal 6 quarters.
13. 1 dollar and 5 dimes equal 15 dimes.
14. A half dollar and a half dollar equal 100 cents.
15. Clock A shows 26 minutes of 11.
16. Clock B shows 25 minutes past 12.
17. In 5 minutes Clock B will show 30 past 12.
18. When you count by fives, you say 115 after 110.
19. When you count by tens, you say 200 after 190.
20. When you count by twos, you say 38 after 36.
21. Add 6, 7, 4, and 2. Add them in Box C below.
22. In Box D find 189 minus 95.
23. In Box E find the sum of 45, 71, and 30.
24. In Box F add 9, 0, 7, and 6.
25. In Box G find 78 minus 43.





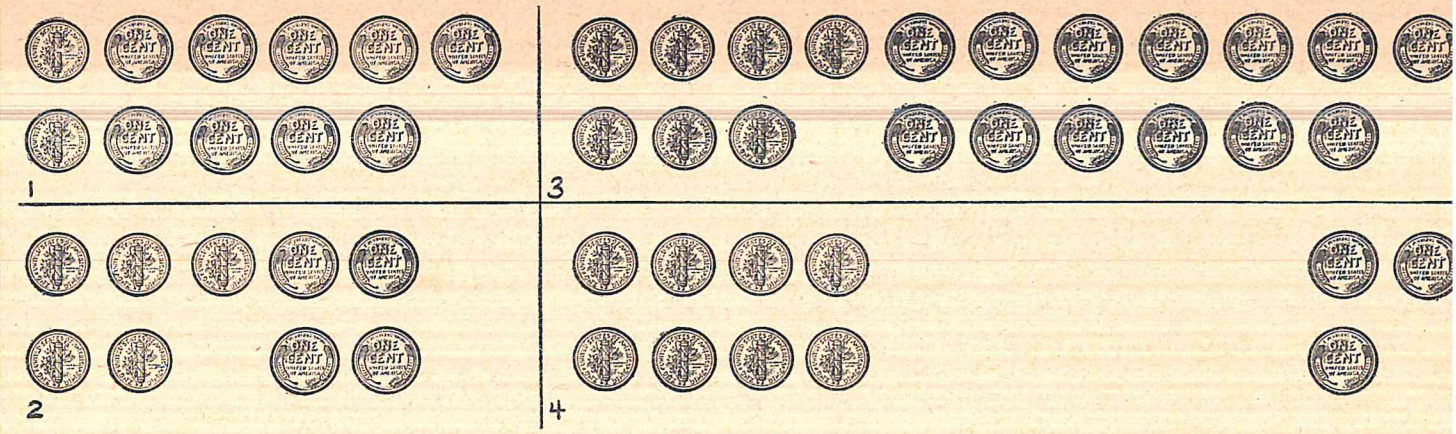
C
6
7
4
+2
19

D
189
−95
94

E
45
71
+30
146

F
9
0
7
+6
22

G
78
−43
35



A doll that Jane and Alice wanted cost 75¢. Jane had 29¢, and Alice had 54¢. Did they have enough money to buy it?

Think of Jane's money as 2 dimes and 9 pennies, as in Picture 1. Think of Alice's money as 5 dimes and 4 pennies, as in Picture 2.

Picture 3 shows all of this money put together. Count the money in Picture 3. You should have counted 83¢.

Picture 4 shows that a dime has been put in place of 10 pennies. Picture 4 shows _____¢.

Did they have enough money? _____

Example A in the next column shows how you can **add** to get the answer.

The 2 in 29¢ means 2 dimes. The 9 means 9 pennies. The 5 in 54¢ means ____ dimes. The 4 means ____ pennies.

First add the two figures that mean pennies. 4 and 9 are ____. 13 pennies = 1 dime and 3 pennies.

Write 3 under the 4. Carry the 1 dime to the next column.

Now add the 1 you carried to the 5 and 2. Think: "1 and 5 are 6. 6 and 2 are 8." Write 8 under the 5.

The answer is ____¢.

A
29 ¢
54 ¢
83 ¢

Now add in Example B.

7 and ____ are ____. 15 pennies equal ____ dime and ____ pennies.

Write ____. Add ____ to the figures in the next column.

What three figures do you add now?

____, ____, and ____

Their sum is ____. Write ____.

B
68 ¢
27 ¢
95 ¢

Add in each example below.

38¢ 34¢ 72¢	16¢ 77¢ 93¢	44¢ 29¢ 73¢	26¢ 66¢ 92¢	59¢ 15¢ 74¢	55¢ 20¢ 75¢	17¢ 67¢ 84¢
51¢ 38¢ 89¢	37¢ 58¢ 95¢	16¢ 39¢ 45¢	20¢ 24¢ 44¢	29¢ 33¢ 62¢	18¢ 58¢ 76¢	38¢ 46¢ 84¢
20¢ 63¢ 83¢	17¢ 75¢ 82¢	19¢ 19¢ 38¢	48¢ 46¢ 94¢	27¢ 49¢ 76¢	15¢ 46¢ 61¢	34¢ 27¢ 61¢

Room 3 asked Rooms 4 and 5 to come to their show. Joe said they would need 49 chairs for Room 3, 28 chairs for Room 4, and 36 chairs for Room 5. How many chairs did they need in all?

Example A in the column at the right shows you how to add to get the answer.

You have learned that 49¢ equals 4 dimes and 9 pennies. The number 49 means 4 tens and 9 ones.

28 means 2 tens and ___ ones.

36 means ___ tens and ___ ones.

The numbers that mean ones are in the **ones' column.** The numbers that mean tens are in the **tens' column.**

In Example A ___, ___, and ___ are in the ones' column.

___, ___, and ___ are in the tens' column.

First add in the ones' column.

___ and ___ are ___.

Remember ___.

___ and ___ are ___.

23 means ___ ones and ___ tens. Write ___ and carry 2 to the tens' column.

A
49
28
36
113

Now add the 2 that you carried to the figures in the tens' column.

2 and 3 are ___. 5 and 2 are ___. 7 and 4 are ___.

Write ___ at the left of the 3.

They needed ___ chairs in all.

Copy the six self-help examples below without the answers. Cover the examples so that you cannot see the answers. Then add. Correct any mistakes that you make.

B
76
15
87
178

C
38
19
38
95

D
73
48
121

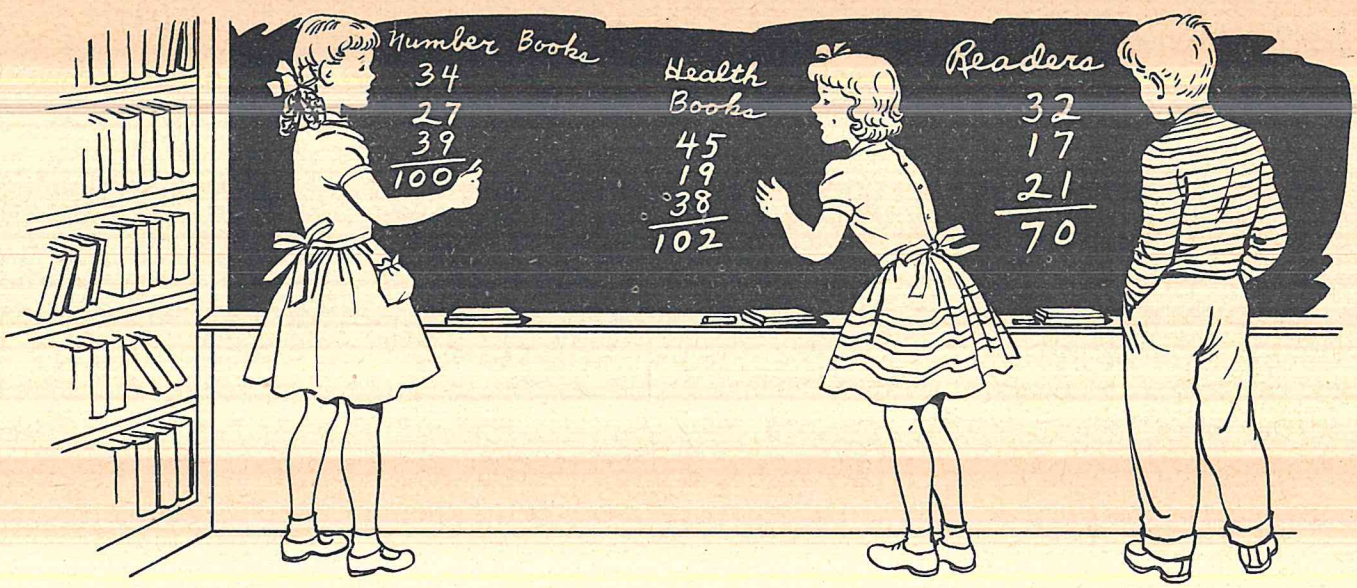
E
45
9
81
135

F
57
49
17
123

G
97
36
79
212

Now add in each example below.

62	24	9		54	19	58	28
23	42	34	29	58	93	9	88
66	83	96	98	33	27	87	12
151	149	139	137	145	139	154	118
55	67	81	81		49	32	45
88	14	76	69	77	63	98	7
93	86	77	5	44	33	14	89
236	167	234	155	121	145	144	141



Bobby, Betty, and Jane counted the books on the shelves in the library. They counted the readers first. As they counted, Bobby wrote the numbers on the blackboard. Then he added them. Look at his work in the picture.

For the readers the sum of the figures in the ones' column is ____. He wrote the ____ and carried the ____.

He added four figures in the tens' column. They were ____, ____, ____, and ____.

The sum for the tens' column is ____.

When they counted the health books, Betty wrote the numbers and added. Look at her work.

The sum for the ones' column is ____. She wrote ____ and carried ____.

In the tens' column she added ____, ____, ____, and ____. The sum is ____.

Now look at the numbers that Jane wrote for the number books.

The sum for the ones' column is ____. She wrote ____ and carried ____.

In the tens' column she added ____, ____, ____, and ____. The sum for this column is ____.

Remember that you may have a zero to write in the answer when you add.

Now copy the six self-help examples below. Copy them without the answers. Cover the examples so that you cannot see the answers. Then add. Correct any mistakes that you make.

A	B	C	D	E	F
10 35 45 90	29 26 65 120	58 99 43 200	50 80 70 200	4 60 45 109	95 68 38 201

For each of the self-help examples below two answers have been written. In each example add **up** and then add **down** the column until you get the same answer both ways. Cross out the wrong answer.

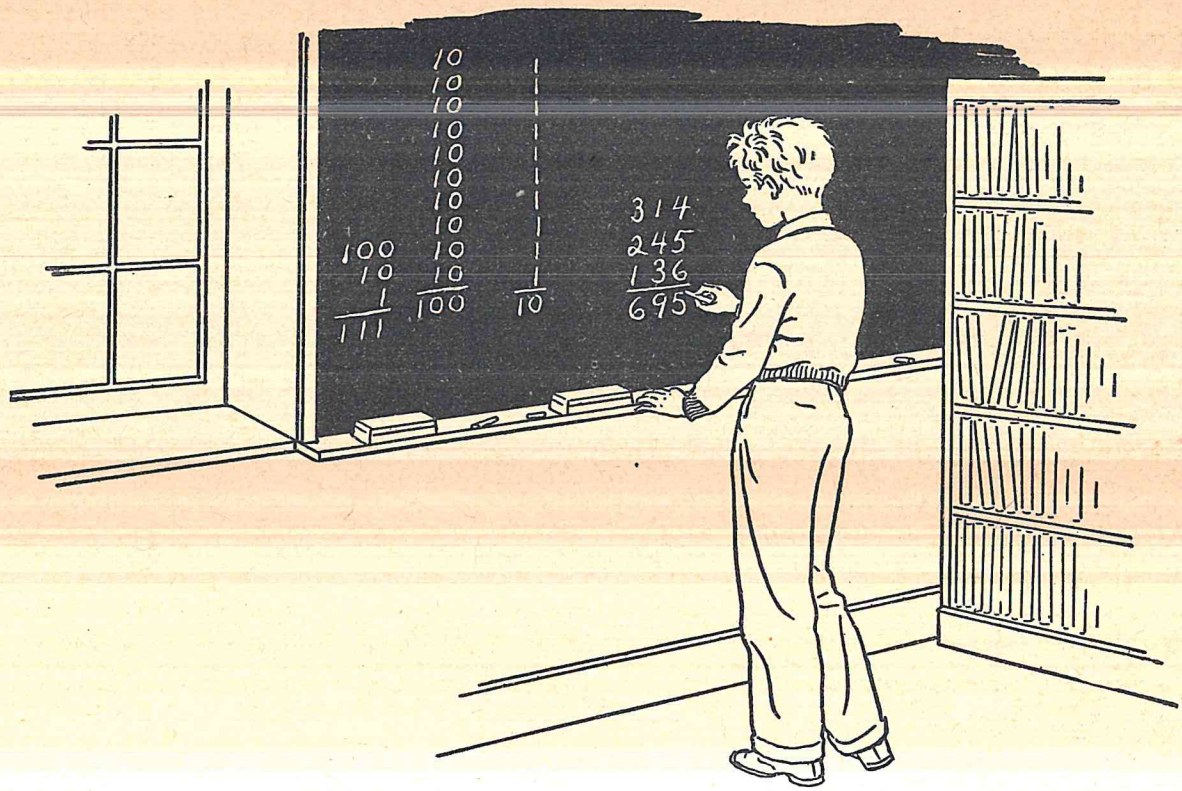
G	H	I	J	K	L
49 88 63 182 200	23 5 62 90 80	85 64 87 236 246	32 24 48 94 104	58 11 40 109 190	31 35 37 93 103

Find the correct answer for each example below. Add **up** the column. Then check your work by adding **down** the column.

1.	4	15	77	98	26	8	84	8
	20	87	79	75	49	80	38	14
	76	48	24	18	33	12	84	18
	100	140	180	191	108	100	206	40
2.	79	28	46	66	28	80	16	93
	7	96	38	96	17	58	30	27
	24	76	23	38	25	33	54	10
	110	200	107	200	70	171	100	130
3.	77	21	31	43	18	77	37	42
	66	2	45	89	86	40	24	8
	97	47	66	78	99	43	58	52
	240	70	142	210	203	160	119	102
4.	78	34	86	73	8	37	92	96
	24	9	92	99	24	27	9	27
	35	23	57	28	9	38	7	77
	137	66	245	199	41	102	108	200

Subtract in each example below.

5.	145	141	138	119	137	116	103
	85	50	92	38	44	22	53
	60	91	46	81	93	94	50
6.	164	181	104	68	117	128	170
	81	90	71	45	46	68	80
	83	91	33	23	71	60	90
7.	154	135	124	87	149	167	152
	62	74	84	24	74	95	81
	92	61	40	63	75	72	71


10
10
10
10
10
10
10
10
10
100
10
1
111
100
10
1
1
1

Look at Example A at the right.

What figures are in the ones' column? ___ and ___

What figures are in the tens' column? ___ and ___

What figures are in the hundreds' column? ___ and ___

A
493
285

The sum for the ones' column is ___. What do you write? ___ Do you carry any figure? ___

The sum for the tens' column is ___. What do you write? ___ What do you carry? ___

What three figures do you add in the hundreds' column? ___, ___, and ___. Their sum is ___.

Check your work in Example A. The answer is ___.

Look at the self-help examples below. Copy them without the answers. Cover the examples so that you cannot see the answers. Then add. Correct any mistakes that you make.

B
407
18
357
782

C
131
585
130
846

D
393
494
887

E
37
209
544
790

F
206
378
584

G
381
180
240
801

Find the sum for each example below. Check your work.

67 315 507 889	249 736 985	176 673 849	205 420 55 680	415 305 269 989	160 583 164 907	629 16 347 992
135 590 202 927	381 244 292 937	22 152 807 981	427 446 873	150 82 474 706	334 347 681	418 306 36 760
203 300 418 921	193 775 968	210 154 534 898	306 20 344 670	38 105 524 667	163 492 254 909	92 102 742 936

Miss Brown told Jack that all the rooms in the school had used 248 pencils the first month, 249 pencils the second month, and 306 the third month. How many pencils were used in all three months?

Example A shows how to add to get the answer.

The sum for the ones' column is ___. What figure is written? ___ What figure is carried? ___

What figures do you add in the tens' column to get 10 in the sum? ___, ___, ___, and ___

What figure is written? ___ What is carried? ___

What figures do you add in the hundreds' column to get 8 in the sum? ___, ___, ___, and ___

The answer for the problem is ___ pencils.

A

$$\begin{array}{r} 248 \\ 249 \\ 306 \\ \hline 803 \end{array}$$

Look at the six self-help examples below. Copy them without the answers. Cover the examples so that you cannot see the answers. Then add. Correct any mistakes you make.

B

$$\begin{array}{r} 59 \\ 87 \\ \hline 146 \end{array}$$

C

$$\begin{array}{r} 195 \\ 498 \\ 108 \\ \hline 801 \end{array}$$

D

$$\begin{array}{r} 165 \\ 287 \\ 528 \\ \hline 980 \end{array}$$

E

$$\begin{array}{r} 93 \\ 123 \\ 285 \\ \hline 501 \end{array}$$

F

$$\begin{array}{r} 196 \\ 727 \\ \hline 923 \end{array}$$

G

$$\begin{array}{r} 186 \\ 244 \\ 187 \\ \hline 617 \end{array}$$

Find the sums. Be sure to check your work.

$$\begin{array}{r} 373 \\ 347 \\ 204 \\ \hline 924 \end{array} \qquad \begin{array}{r} 356 \\ 146 \\ \hline 502 \end{array} \qquad \begin{array}{r} 79 \\ 208 \\ 506 \\ \hline 793 \end{array} \qquad \begin{array}{r} 356 \\ 565 \\ \hline 921 \end{array} \qquad \begin{array}{r} 69 \\ 408 \\ 325 \\ \hline 802 \end{array} \qquad \begin{array}{r} 493 \\ 67 \\ 387 \\ \hline 947 \end{array} \qquad \begin{array}{r} 140 \\ 236 \\ 542 \\ \hline 918 \end{array}$$

$$\begin{array}{r} 504 \\ 46 \\ 318 \\ \hline 868 \end{array} \qquad \begin{array}{r} 327 \\ 399 \\ 174 \\ \hline 900 \end{array} \qquad \begin{array}{r} 199 \\ 703 \\ \hline 902 \end{array} \qquad \begin{array}{r} 164 \\ 277 \\ 469 \\ \hline 910 \end{array} \qquad \begin{array}{r} 635 \\ 276 \\ 16 \\ \hline 927 \end{array} \qquad \begin{array}{r} 477 \\ 299 \\ 155 \\ \hline 931 \end{array} \qquad \begin{array}{r} 307 \\ 66 \\ 405 \\ \hline 778 \end{array}$$

$$\begin{array}{r} 462 \\ 36 \\ 145 \\ \hline 643 \end{array} \qquad \begin{array}{r} 196 \\ 405 \\ \hline 601 \end{array} \qquad \begin{array}{r} 67 \\ 84 \\ 109 \\ \hline 260 \end{array} \qquad \begin{array}{r} 247 \\ 365 \\ 279 \\ \hline 891 \end{array} \qquad \begin{array}{r} 4 \\ 60 \\ 309 \\ \hline 373 \end{array} \qquad \begin{array}{r} 102 \\ 230 \\ 268 \\ \hline 690 \end{array} \qquad \begin{array}{r} 83 \\ 42 \\ 176 \\ \hline \end{array}$$

Always read your problems carefully. Decide whether the answer should be larger or smaller than the numbers in the problem.

Watch for numbers that you do not need in finding answers to problems.

Read Problem 1. You do not need some of the numbers in finding the answer. The numbers you do not need are 5 and 12.

1. Uncle Henry has 248 black chickens, 335 white chickens, 12 cows, and 5 horses on his farm. How many chickens does Uncle Henry have?

The answer is 583 chickens.

2. Last year Uncle Henry had 796 chickens. 350 of the chickens were black. This year he has only 583 chickens, 248 of which are black. How many fewer chickens does he have this year than last year?

The numbers you do not need in getting the answer are 350 and 248.

The answer is 213 fewer chickens.

3. Ann looks for the eggs every day. Monday she found 294 eggs, Tuesday she found 268 eggs, and Wednesday she found 312 eggs. How many eggs did Ann find on these three days?

The answer is 874 eggs.

4. The man on the farm next to Uncle Henry's has 40 cows. He has 28 brown cows and 12 black-and-white cows. How many more brown cows does he have than black-and-white cows?

The answer is 16 more.

5. Jane's mother counted all the jars that she was going to use to can fruit. She found she had 96 jars that would hold 1 quart of fruit each, 25 jars that would hold 2 quarts of fruit, and 79 jars that would hold 1 pint of fruit. How many jars did Jane's mother count?

The answer is 190 jars.

6. Jane helped her mother can fruit for 30 minutes before lunch, and Jack helped her for 25 minutes after lunch. For how many fewer minutes did Jack help his mother than Jane did?

The answer is 5 fewer minutes.

7. Betty filled boxes with apples for 3 hours on Saturday morning and for 4 hours on Monday morning. She filled 25 boxes with apples. Bobby filled boxes with apples for 4 hours on Saturday morning and for 4 hours on Monday morning. How many hours did both children spend filling boxes with apples on the two mornings?

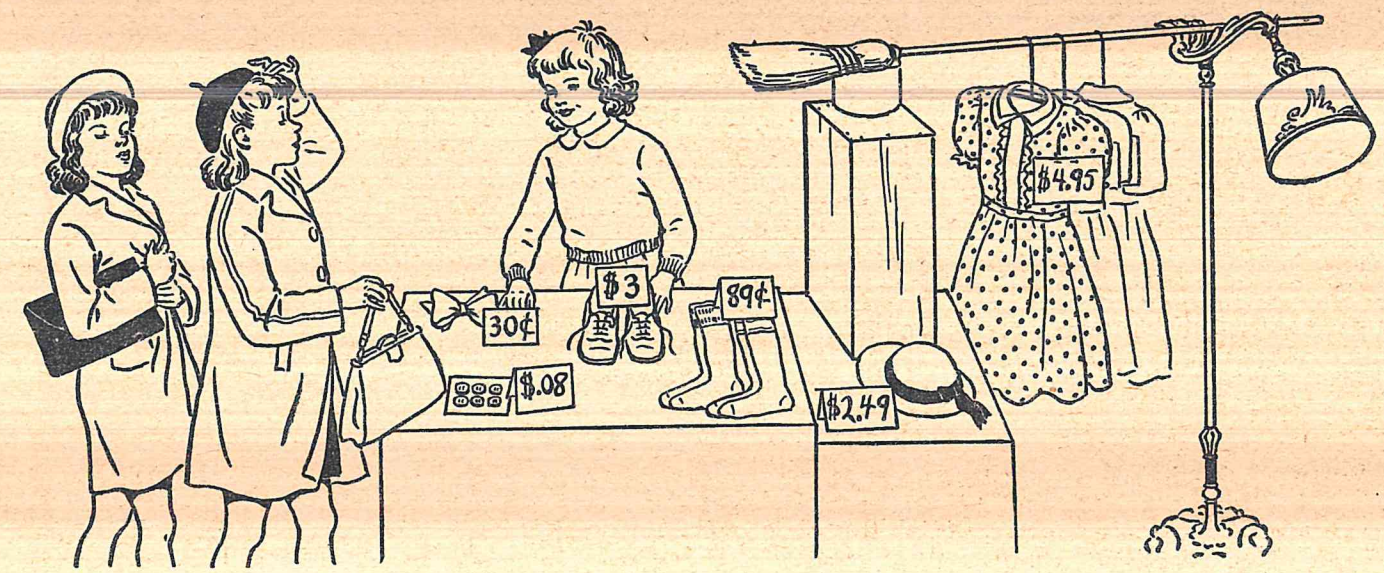
The answer is 15 hours.

8. Last month Alice planted some bulbs. Some of the bulbs have flowers now. 24 of the bulbs have red flowers, 32 have white flowers, 36 have yellow flowers, and 12 of the bulbs have no flowers. How many bulbs did she plant?

The answer is 72 bulbs.

9. Alice had 136 flowers on one plant. She cut 42 of these flowers to put in 2 bowls. How many flowers were left on the plant?

The answer is 94 flowers.



The girls decided to play store one day. They put a price card on each thing that they had for sale.

Look at the price for the dress. We read the price this way: **4 dollars and 95 cents.**

The sign before the 4 is called the **dollar sign.**

The mark between the 4 and 9 is called the **cents' point.** Say **and** for the cents' point.

Look at the price for the hat. Read it 2 dollars _____ 49 cents.

The price for the shoes is $3. Another way to write 3 dollars is **$3.00.**

The stockings cost 89¢. Another way to write 89¢ is **$ .89.**

The ribbon cost 30¢. Another way to write it is _____.

Two ways to write the price of the buttons are $_____ and _____¢.

Mary gave Ann $1.00 for the stockings. Ann gave her a penny, a _____, and a _____, which was the correct change.

Write the missing numbers and words:

1. $2.80 means ___ dollars _____ 80 _____.
2. $7.32 means ___ dollars and ___ cents.
3. Fifteen dollars and ten cents in figures is _____.
4. Fifty-eight cents is _____ or _____.
5. Thirteen dollars and eighty cents in figures is _____.
6. Seventy cents is _____ or _____.
7. $2.10 means ___ dollars _____ 10 cents.
8. Eighteen dollars and five cents in figures is _____.
9. Four cents is _____ or _____.
10. Ten dollars is _____ or _____.
11. Five dollars is _____ or _____.
12. A half dollar is _____¢ or $_____.
13. A quarter is _____¢ or $_____.
14. A dime is _____¢ or $_____.
15. A nickel is _____¢ or $_____.
16. A penny is _____¢ or $_____.

Write the sums:

1. 3 + 0 + 5 = 8 ; 24 + 64 = 88 ; 95 + 92 = 187 ; 10 + 52 + 43 = 105 ; 3 + 72 + 22 = 97 ; 4 + 7 + 6 = 17 ; 8 + 5 + 8 = 21 ; 82 + 5 + 71 = 158

2. 19 + 27 + 44 = 90 ; 40 + 85 + 75 = 200 ; 86 + 45 + 84 = 205 ; 420 + 101 + 73 = 594 ; 325 + 217 + 456 = 998 ; 484 + 53 + 392 = 919 ; 235 + 359 + 206 = 800

Subtract in each example below.

3. 476 − 236 = 240 ; 89 − 50 = 39 ; 139 − 81 = 58 ; 164 − 94 = 70 ; 857 − 621 = 236 ; 149 − 87 = 62 ; 93 − 52 = 41

4. 156 − 74 = 82 ; 69 − 53 = 16 ; 362 − 232 = 130 ; 106 − 81 = 25 ; 118 − 87 = 31 ; 120 − 60 = 60 ; 95 − 21 = 74

5. 437 − 316 = 121 ; 86 − 12 = 74 ; 149 − 96 = 53 ; 139 − 79 = 60 ; 178 − 82 = 96 ; 106 − 31 = 75 ; 101 − 20 = 81

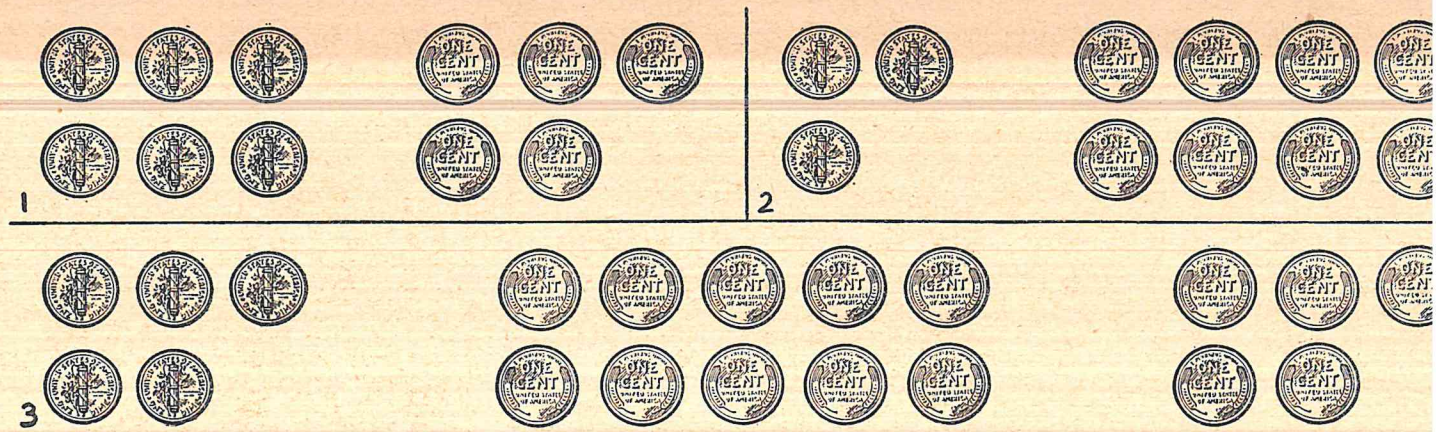
Write the answers for the examples below.

6. 13 − 6 = 7 ; 11 − 5 = 6 ; 14 − 6 = 8 ; 0 + 3 = 3 ; 6 − 0 = 6 ; 9 + 2 = 11 ; 7 + 4 = 11 ; 6 + 7 = 13 ; 9 − 7 = 2 ; 2 + 0 = 2

7. 16 − 7 = 9 ; 4 + 9 = 13 ; 8 + 9 = 17 ; 11 − 3 = 8 ; 8 − 8 = 0 ; 9 + 6 = 15 ; 11 − 6 = 5 ; 9 + 8 = 17 ; 9 + 2 = 7 ; 14 − 5 = 9

8. 8 + 0 = 8 ; 2 − 1 = 1 ; 13 − 9 = 4 ; 0 + 9 = 9 ; 10 − 5 = 5 ; 8 + 5 = 13 ; 8 + 8 = 16 ; 5 + 7 = 12 ; 7 − 1 = 6 ; 13 − 5 = 8

9. 4 and 8 are 12.
10. 7 from 11 is 4.
11. 13 minus 8 = 5
12. 5 + 9 = 14
13. 15 − 6 = 9
14. 8 minus 8 = 0
15. 15 − 8 = 7
16. 6 plus 8 = 14
17. 8 from 12 is 4.
18. 8 minus 0 = 8
19. 7 − 5 = 2
20. 9 + 4 = 13
21. 5 from 12 is 7.
22. 9 − 8 = 1
23. 6 and 6 are 12.
24. 10 minus 1 = 9
25. 13 minus 4 = 9
26. 9 from 12 is 3.



Joe had 65¢ when he went to the store. He spent 38¢ for a pencil box. How much money did Joe have left?

Study the following to find out how to subtract to get the answer.

Picture 1 shows that you can think of the money he had when he went to the store as 6 dimes and 5 pennies.

A
65 ¢
38 ¢

Picture 2 shows that you can think of the money that he spent as 3 dimes and 8 pennies. Now look at Example A.

You cannot subtract 8 from 5 in the ones' column. Picture 3 shows how to change 65¢ so that you can subtract. Take 1 dime from 6 dimes and change it to pennies. Now think of 65¢ as 5 dimes and 15 pennies, as in Example B.

8 pennies from the 15 pennies are 7 pennies.

Write ____.

3 dimes from 5 dimes are 2 dimes. Write ____.

Joe had ____¢ left.

B
5 15
~~6~~ ~~5~~ ¢
38 ¢
27 ¢

72¢ equals 6 dimes and ____ pennies.

47 equals 3 tens and 17 ones.

Example C shows how to subtract 18 from 94.

Before you subtract in the ones' column, think of 94 as 8 tens and 14 ones.

Think, "8 from 14 is ____."

Write ____.

Now subtract in the tens' column. You took 1 ten from the 9 tens. You had 8 tens left. So think, "1 from 8 is ____." Write ____.

C
94
18
76

Example D shows how to check your work in Example C.

To check the work, add the answer to the smaller number. If the sum is not the same as the larger number in the example, you have made a mistake.

Add 76 and 18. The sum is 94.

Is 76 the correct answer? ____

D
94
18
76
94

Subtract in Example E.

Think of the 2 in 42 as ____.

____ from ____ is ____.

Write ____.

In the tens' column you subtract ____ from ____. Write ____.

To check, add ____ and ____.

E
42
25

Look at the self-help examples below. Copy them without the answers. Cover the examples so that you cannot see the answers. Then subtract. Correct any mistakes that you make.

F	G	H	I	J	K
81 25 56	93 66 27	76 37 39	57 29 28	52 14 38	82 47 35

To check the work in Example F, you should add ____ and ____. If the work is correct, the sum of these numbers is ____.

Subtract in each example below. Check your work.

97 18 79	93 48 45	64 36 28	85 55 30	54 19 36	93 34 59	86 59 27	72 28 44
62 27 35	81 34 47	74 48 26	65 27 38	93 47 46	94 25 69	74 47 24	56 28 28
85 58 27	155 60 95	93 59 34	91 36 55	95 29 66	63 35 28	42 16 26	124 90 34

1. Henry had 62 chickens. He sold 48 of them. How many did he have left?

The answer is 14 chickens.

2. There were 44 chairs in Room 3. 72 children came to see a play. How many did not have chairs?

The answer is 28 children.

3. The children practiced their play 24 minutes on Monday and 15 minutes on Tuesday. How much longer did they practice on Monday than on Tuesday?

The answer is 9 minutes.

4. Thirty-three of the 72 children who came to see the play were boys. How many girls came to see the play?

The answer is 39 girls.

5. Tom sold 35 papers on Monday, 45 on Tuesday, and 40 on Wednesday. How many papers did he sell in all?

The answer is 120 papers.

6. He sold 45 papers on Thursday and 28 on Friday. How many fewer did he sell on Friday than on Thursday?

The answer is 17 fewer papers.

A	B	C	D	E	F
80 26 54	62 58 4	35 8 27	71 64	94 7	50 13

The examples above show some new things to watch about zero when you subtract.

In Example A take 1 ten from the 8 tens. Think of the 0 in the ones' column as 10. 6 from ___ is 4.

In the tens' column subtract ___ from ___.

In Example B think of the 2 in the ones' column as ___. Now subtract ___ from ___.

In the tens' column subtract ___ from ___. The answer is ___. Do not write 0 when it comes on the left.

In Example C think of 5 as ___. 8 from 15 is 7. You took 1 ten from the 3 tens. So think of the 3 as 2.

There is no figure to subtract from the 2. So write 2.

Subtract in Example D. It is like Example ___.

Subtract in Example E. It is like Example ___.

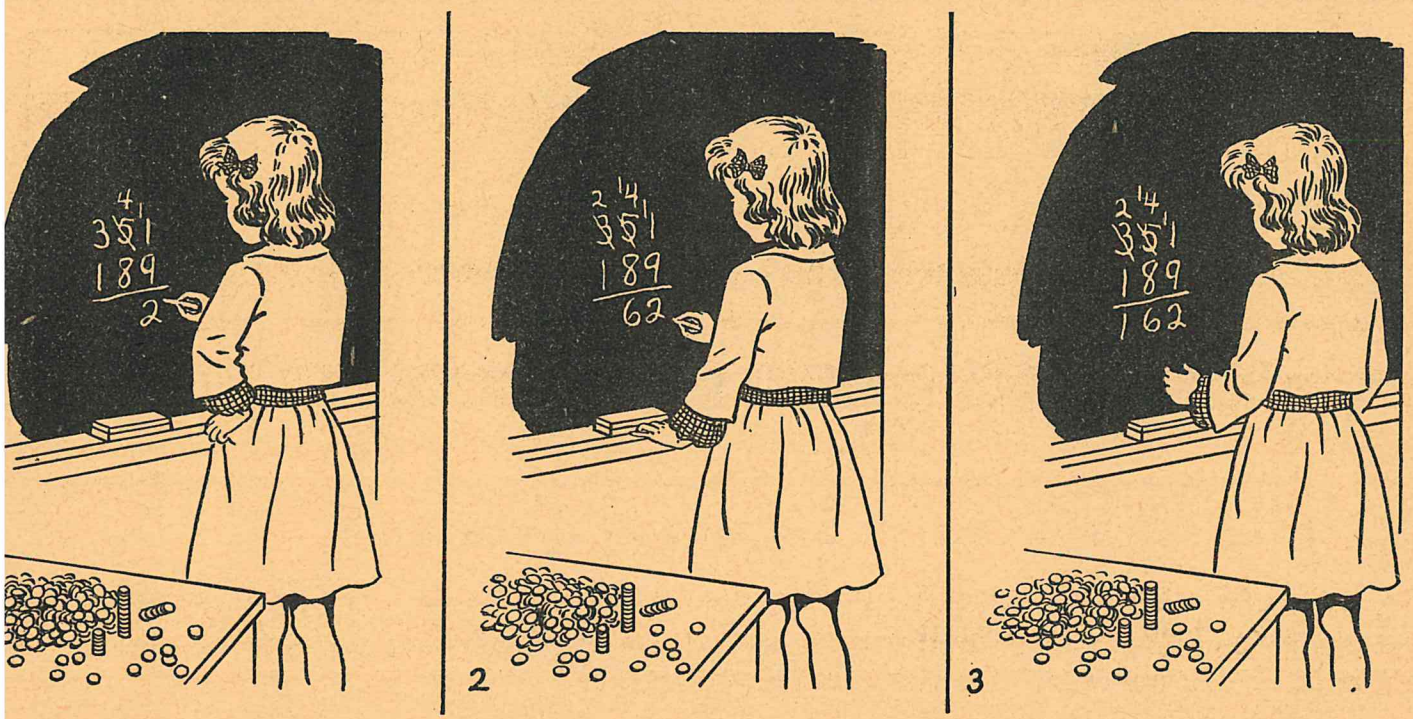
Subtract in Example F. It is like Example ___.

Copy the self-help examples below without the answers. Then subtract. Correct any mistakes that you make.

G	H	I	J	K	L
81 78 3	60 32 28	60 8 52	21 3 18	52 45 7	80 34 46

Subtract in each example below. Check your work.

70 31 39	32 24 08	120 30 90	91 7 84	39 31 08	80 76 04	52 3 49	21 19 02
24 4 20	64 58 06	41 32 09	70 29 41	50 4 46	60 17 43	40 2 38	67 39 28



Last week the children in Room 3 gave 189 pennies for the Red Cross. This week they gave 351 pennies. How many more pennies did they give this week than last week?

The pictures show how Susan found the answer. She subtracted _____ from _____.

Look at Picture 1. She could not subtract in the ones' column. So she took 1 ten from the 5 tens. She thought of the 1 as ____ and the 5 as ____.

Then she subtracted ____ from ____ and wrote ____.

Now look at Picture 2. She could not subtract 8 from 4 in the tens' column. She thought of the 4 as ____ and the 3 in the hundreds' column as ____.

She subtracted ____ from ____ and wrote ____.

Picture 3 shows that she subtracted ____ from ____ in the hundreds' column.

The answer is ____ pennies.

Look at Example A.

To subtract in the ones' column, think of the 7 as ____ and the 2 as ____. Write ____.

A
627
238
389

In the tens' column you will subtract 3 from ____. When you do this, you must think of the 6 in the hundreds' column as ____.

Look at Example B.

You cannot take a ten from 0 to change 7 to 17. So take 1 from the 4. Think of the 4 as 3 and the 0 as 10.

B
3 9
4 0 7
2 5 8
1 4 9

Now take 1 from this 10 and think of this 10 as ____. Then think of the 7 as ____.

Now subtract. 8 from ____ is ____. 5 from ____ is ____. 2 from ____ is ____.

To check Example B, add _____ and _____. If the work is correct, the sum will be _____.

Copy the self-help examples below without the answers. Cover the examples so that you cannot see the answers. Then subtract. Correct any mistakes that you make.

C	D	E	F	G	H
311 259 52	706 397 309	580 48 532	983 585 398	205 86 119	834 167 667

Subtract in each example below. Check your work.

201 102 099	926 398 528	105 77 28	490 481 009	944 486 448	704 449 255	475 305 170
703 390 313	623 159 464	460 296 164	705 668 037	223 164 059	106 59 047	736 457 160
738 589 149	904 735 169	603 497 106	532 379 153	903 16 887	822 774 048	831 439 392

1. Room 3 saved 604 pounds of paper. Room 4 saved 489 pounds. How many more pounds did Room 3 save than Room 4?

The answer is 115 pounds.

2. Joe's yard is 325 feet long. Tom's yard is 139 feet long. How much longer is Joe's yard than Tom's?

The answer is 186 feet.

3. The schoolhouse is 170 feet long and 98 feet wide. How much longer than wide is it?

The answer is 72 feet.

4. Bobby sold 110 papers, and Jack sold 105 papers. How many papers did both boys sell?

The answer is 215 papers.

5. Joe's father has 614 chickens. Ann's father has 375 chickens. Joe's father has how many more chickens than Ann's father?

The answer is 249 chickens.

6. 1948 had 366 days. On March 11 seventy-one days had passed. How many more days were there after March 11?

The answer is 350 days.

Some of the problems on this page have two questions. Be sure to find the answers for both questions.

When a problem has two questions, find the answer to the first question. Then find the answer to the second question.

1. Bobby's room bought 22 ten-cent savings stamps this week. Last week they bought 35 ten-cent savings stamps. How many ten-cent savings stamps did the room buy in both weeks? How many more ten-cent stamps did they buy last week than this week?

The answer to the first question is _____ ten-cent savings stamps.

The answer to the second question is _____ more stamps.

2. One day four of the boys were weighed at the store. Henry weighed 56 pounds, Tom weighed 53 pounds, Bobby weighed 58 pounds, and Billy weighed 48 pounds. How much did the four boys weigh altogether? How much more did Henry weigh than Billy?

The answer to the first question is _____ pounds.

The answer to the second question is _____ pounds.

3. In January Nancy saved 59¢, and Betty saved 20¢. How much did both girls save?

The answer is _____¢.

4. June had 55¢ left after spending 41¢ for bananas. How much money did June have before she bought the bananas?

The answer is _____¢.

5. Jack and Jane had a large picture puzzle to put together. It had 405 pieces in it. Jack put 287 pieces in place, and Jane put the others in place. How many pieces did Jane put in the puzzle?

The answer is _____ pieces.

6. Sam found out that there were 368 boys and 320 girls in his school. How many children were there in his school? How many more boys were there than girls?

The answer to the first question is _____ children.

The answer to the second question is _____ more boys than girls.

7. Tom has 196 stamps in his stamp book and 79 stamps not in his book. How many stamps does Tom have?

The answer is _____ stamps.

8. Sally's mother bought one dozen oranges for 39¢ and two dozen eggs for 72¢. How much more did she pay for the eggs than for the oranges?

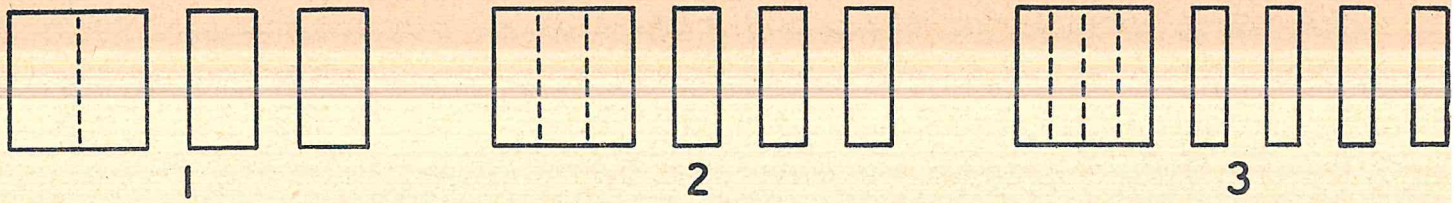
The answer is _____¢.

9. When the store opened Monday morning, the store man had the following numbers of marbles to sell: 110 red marbles, 153 blue marbles, 144 yellow marbles, and 125 green marbles. How many marbles in all did he have to sell?

The answer is _____ marbles.

10. The store man had 144 marbles in a small box and 388 marbles in a large box. How many more marbles did he have in the large box than in the small box?

The answer is _____ more marbles.



Alice, Sue, and Ann had some colored drawing paper that they used to make place cards for a party.

Picture 1 shows the paper Alice had. She cut the paper into two equal parts. Each part is **one half** of the piece of paper.

Picture 2 shows the piece of paper that Sue had. She cut her paper into three equal parts. Each part was **one third** of the piece of paper.

Picture 3 shows the piece of paper that Ann had. She cut her paper into four equal parts. Each part was **one fourth** of the piece of paper.

1. When a thing is divided into 3 equal parts, is each part one half, one third, or one fourth of the thing? The answer is one _____.

2. When a cake is cut in half, there are ___ pieces.

3. When a thing is divided into 3 parts that are not equal in size, is each of the three parts one third of the thing? The answer is _____.

Look at the circles and squares below.

4. One third of Circle ___ is black.

5. All of Circle ___ is black.

6. One fourth of Circle ___ is black.

7. One half of Circle ___ is black.

8. Make one fourth of Square E black.

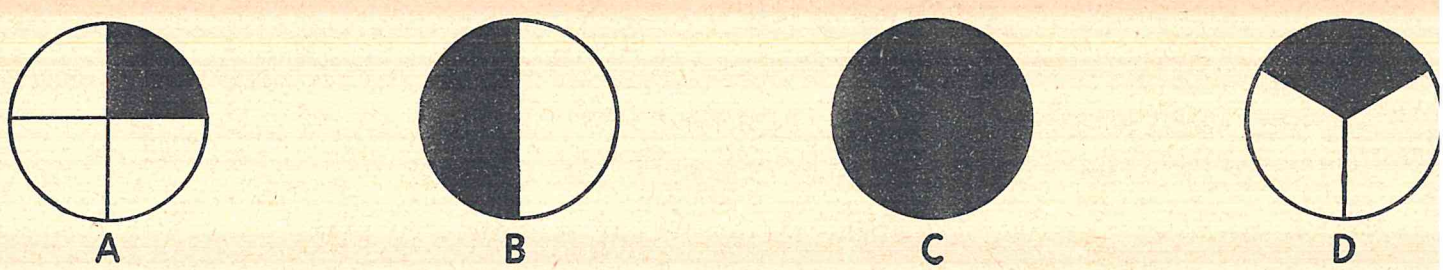
9. Make all of Square F black.

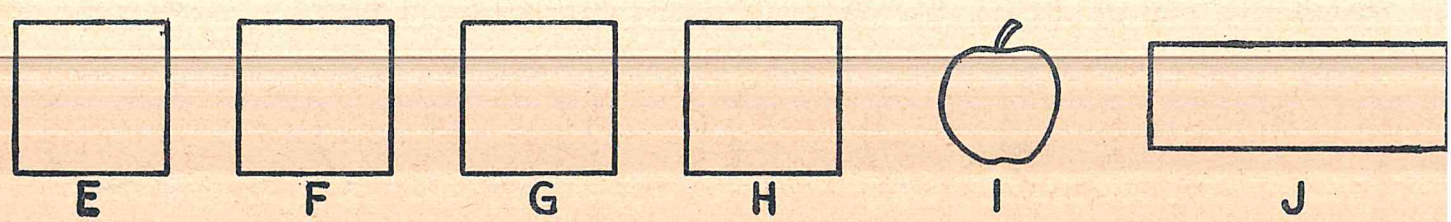
10. Make one half of Square G black.

11. Make one third of Square H black.

12. Draw a pencil line on the apple in the picture below to show how you would cut it into two equal parts.

13. With your pencil mark the board in the picture below to show how you would cut it into fourths.



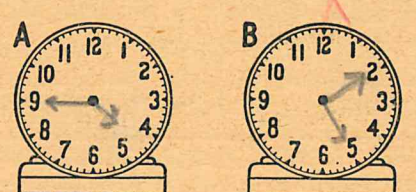


Subtract in each example. Check your work.

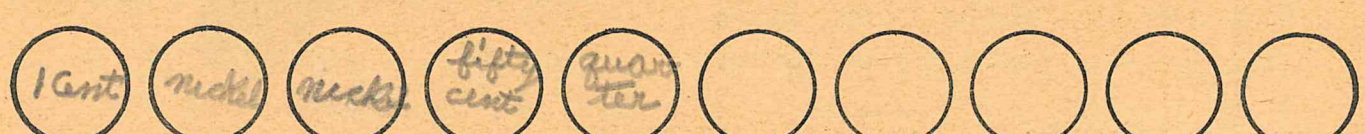
45 23	397 245	62 37	874 345	621 174	978 279	936 868
46 9	131 25	107 99	700 503	851 262	202 20	801 453

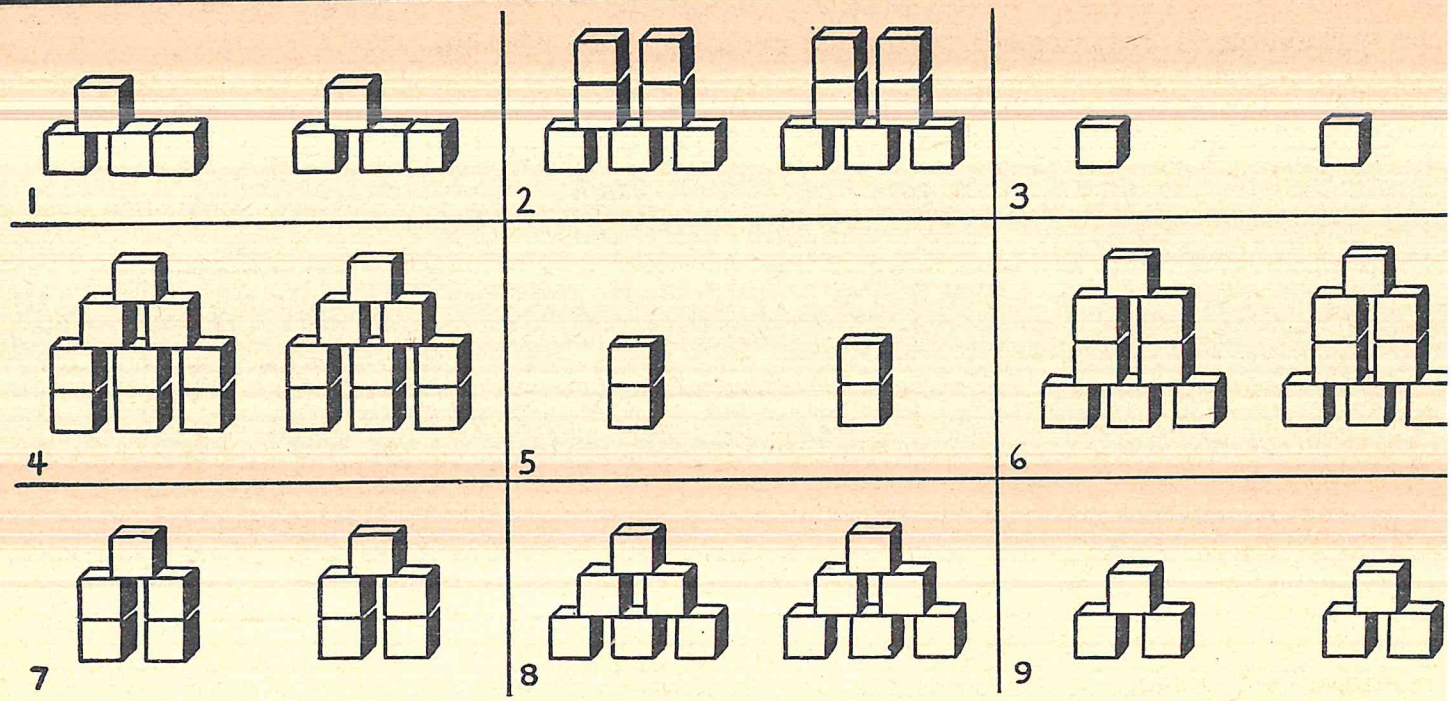
Write the answers on the lines:

1. The fourth number at the right is 109. 10, 6, 23, 109, 0
2. Which is more, 1 dozen eggs or 14 eggs? 14 eggs
3. 1 foot and 5 inches are 17 inches.
4. 1 quart and 3 pints are 5 pints.
5. Which is more, 2 pints or 3 cupfuls? 3 cupfuls
6. Is the day before May 1, April 30 or April 31? 30
7. The answer for the third example from the left in the second row at the top of this page is 99.
8. Make Clock A show 15 minutes of 5.
9. Make Clock B show 5 minutes past 10.



10. One half of Circle E is black.
11. One third of Circle C is black.
12. One fourth of Circle D is black.
13. 4 dollars and 4 quarters equal 5 dollars.
14. 9 dimes and 2 nickels equal $1.
15. Write six dollars in figures in two ways. $6.00 and 600¢
16. Write nine dollars and four cents in figures. $9.04
17. Write seven hundred seven in figures. 707
18. Suppose that you sell Jack a toy for 14¢ and that he gives you a dollar. Write in the circles below the names of the coins you would give him in change. Use as many of the circles as you need.





Jack showed his little brother Billy how to make things with his blocks. The pictures show some of the things they made.

Picture 1 shows 2 houses he made.
He used ___ blocks for one house.
He used ___ blocks for two houses.
4 and 4 are ___. 2 fours are ___.

He used 4 blocks two times. 2 times 4 blocks are 8 blocks. 2 times 4 is ___.

When you think "2 times 4," you **multiply** 4 by 2.

Example A shows another way to write "2 times 4 is 8." The sign between the 2 and the 4 tells you to multiply. It is called the **times sign.**

A $2 \times 4 = 8$

Now look at Picture 2.
Billy used ___ blocks for one house.
Billy used ___ blocks for two houses.
7 and 7 are ___. 2 sevens are ___.
2 times 7 is ___. $2 \times 7 =$ ___

1. Billy made 2 large houses. He used 8 blocks for each house. How many blocks did he use for the two houses?

Picture ___ above goes with this problem.

Example ___ near the top of the next page goes with Problem 1.

The answer is ___ blocks.

2. Jack made 2 large houses. He used 9 blocks for each house. How many blocks did he use for both houses?

Picture ___ goes with Problem 2.

Example ___ near the top of the next page goes with Problem 2.

The answer is ___ blocks.

3. Jack and Billy each made some steps. Each boy used 3 blocks. How many blocks did they use in all?

Picture ___ goes with Problem 3.

Example ___ near the top of the next page goes with Problem 3.

The answer is ___ blocks.

Example B below goes with Picture 3 on page 92. So write the number 3 on the line at the right of the example. Look at each of the other examples. Write on the line the number of the picture that goes with the example.

B $2 \times 1 = 2$ ___	E $2 \times 4 = 8$ ___	H $2 \times 7 = 14$ ___
C $2 \times 2 = 4$ ___	F $2 \times 5 = 10$ ___	I $2 \times 8 = 16$ ___
D $2 \times 3 = 6$ ___	G $2 \times 6 = 12$ ___	J $2 \times 9 = 18$ ___

Learn the nine examples above with their answers. Then write the answers for the following.

1. 2 fours are 8.
2. $2 \times 6 =$ 12
3. 2 times 1 is 2.
4. $2 \times 9 =$ 18
5. 2 sevens are 14.
6. $2 \times 5 =$ 10
7. 2 nines are 18.
8. $2 \times 7 =$ 14
9. $2 \times 4 =$ 8
10. 2 times 2 is 4.
11. $2 \times 8 =$ 16
12. $2 \times 3 =$ 6
13. 2 ones are 2.
14. $2 \times 8 =$ 16
15. 2 times 6 is 12.

In the examples below you will make mistakes if you are not careful about the signs. Write the answers.

16. $2 \times 2 =$ 4
17. $2 + 2 =$ 4
18. $2 - 2 =$ 0
19. $2 \times 1 =$ 2
20. $2 \times 8 =$ 16
21. $2 \times 5 =$ 10
22. $14 - 8 =$ 6
23. $7 + 8 =$ 15
24. $2 \times 4 =$ 8
25. $8 + 8 =$ 16
26. $10 - 7 =$ 3
27. $4 + 7 =$ 11
28. $2 \times 6 =$ 12
29. $3 + 9 =$ 13
30. $2 \times 3 =$ 6
31. $2 \times 9 =$ 18
32. $6 + 9 =$ 15
33. $13 - 9 =$ 4
34. $2 \times 7 =$ 14
35. $10 - 1 =$ 9

36. Mary bought 2 new pencils for 7¢ each. How much did both pencils cost?

The answer is 14 ¢.

37. Joe has two piles of paper to sell. There are 5 pounds in each pile. How many pounds does he have in all?

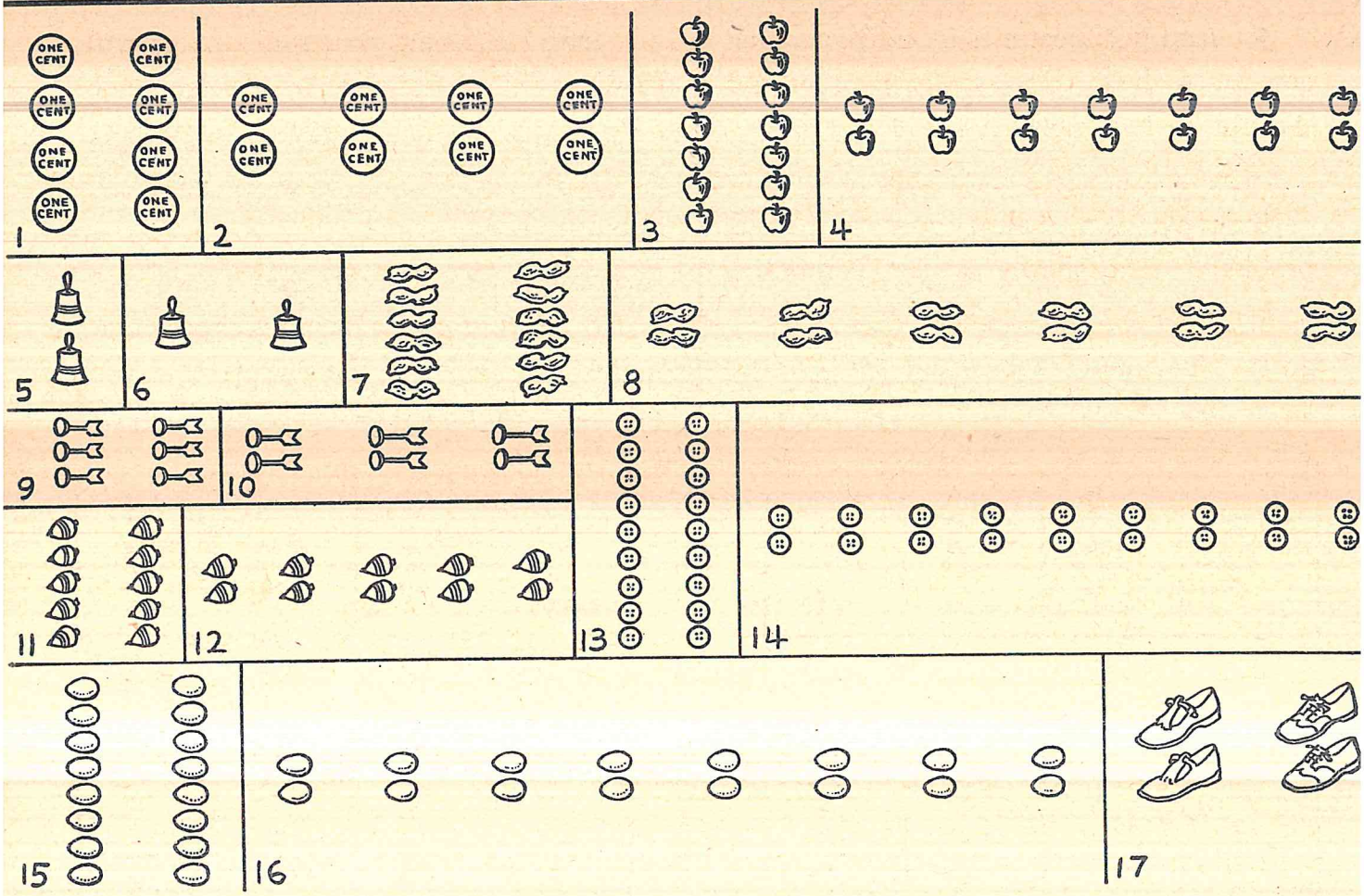
The answer is 10 pounds.

38. Bobby and Betty each spent 9¢. How much did they both spend?

The answer is 18 ¢.

39. Susan went to the store 2 times. She carried 2 packages each time. How many packages did she carry in all?

The answer is 4 packages.



1. Bobby gave 3 darts to each of 2 friends. How many darts did he give away? Picture 9 will help you find the answer.

Bobby has put the darts in 2 rows of 3 darts each. 2 threes are ____.

$2 \times 3 =$ ____

The answer is ____ darts.

2. Tom gave 2 darts to each of 3 friends. How many darts did he give away? Picture 10 will help you find the answer.

Tom has put the darts in 3 rows of 2 each. 3 twos are ____. $3 \times 2 =$ ____.

The answer is ____ darts.

Pictures 9 and 10 show that 2 threes are the same as 3 twos.

Examples A, B, C, and D show two ways to write $2 \times 3 = 6$ and $3 \times 2 = 6$.

A $2 \times 3 = 6$

B $\begin{array}{r} 3 \\ \times 2 \\ \hline 6 \end{array}$

C $\begin{array}{r} 2 \\ \times 3 \\ \hline 6 \end{array}$

D $3 \times 2 = 6$

Read Examples A and B, "2 times ____ equals ____."

Read Examples C and D, "____ times 2 equals ____."

3. Joe put 4 pennies in his bank each day for 2 days. How many pennies did he put in his bank on the two days?

Look at Pictures 1 and 2. Picture ____ goes with this problem.

Look at Examples E to V on the next page. Example ____ goes with Problem 3.

The answer is ____ pennies.

4. Ann put 2 pennies in her bank each day for 4 days. How many pennies did she put in her bank in the 4 days?

Picture 2 goes with this problem. Example H below goes with this problem. The answer is 8 pennies.

5. Jane gave 2 apples to each of 7 girls. How many apples did she give to all 7 girls?

Picture 4 and Example K go with Problem 5. The answer is 14 apples.

Example E below tells you that 2 ones are 2. Picture 6 on page 94 goes with Example E.

Example N tells you that 1 two is 2.

On the line under each example below write the number of the picture that goes with the example. Learn the examples.

E	F	G	H	I	J	K	L	M
1 ×2 = 2	2 ×2 = 4	3 ×2 = 6	4 ×2 = 8	5 ×2 = 10	6 ×2 = 12	7 ×2 = 14	8 ×2 = 16	9 ×2 = 18
5	17	10	1	11	8	3	16	13

N	O	P	Q	R	S	T	U	V
2 ×1 = 2	2 ×2 = 4	2 ×3 = 6	2 ×4 = 8	2 ×5 = 10	2 ×6 = 12	2 ×7 = 14	2 ×8 = 16	2 ×9 = 18
5	17	10	1	11	8	3	16	13

Write the answers for the following.

6. 7 twos are 14.
7. 2 × 3 = 6
8. 9 times 2 is 18.
9. 1 × 2 = 2
10. 2 fours are 8.
11. 2 times 7 is 14.
12. 2 twos are 4.
13. 8 × 2 = 16
14. 2 sixes are 12.
15. 5 twos are 10.
16. 2 × 2 = 4
17. 8 twos are 16.
18. 2 × 9 = 18
19. 5 times 2 is 10.
20. 4 × 2 = 8
21. 2 times 5 is 10.
22. 3 × 2 = 6
23. 6 times 2 is 12.
24. 2 eights are 16.
25. 2 × 7 = 14
26. 2 times 1 is 2.

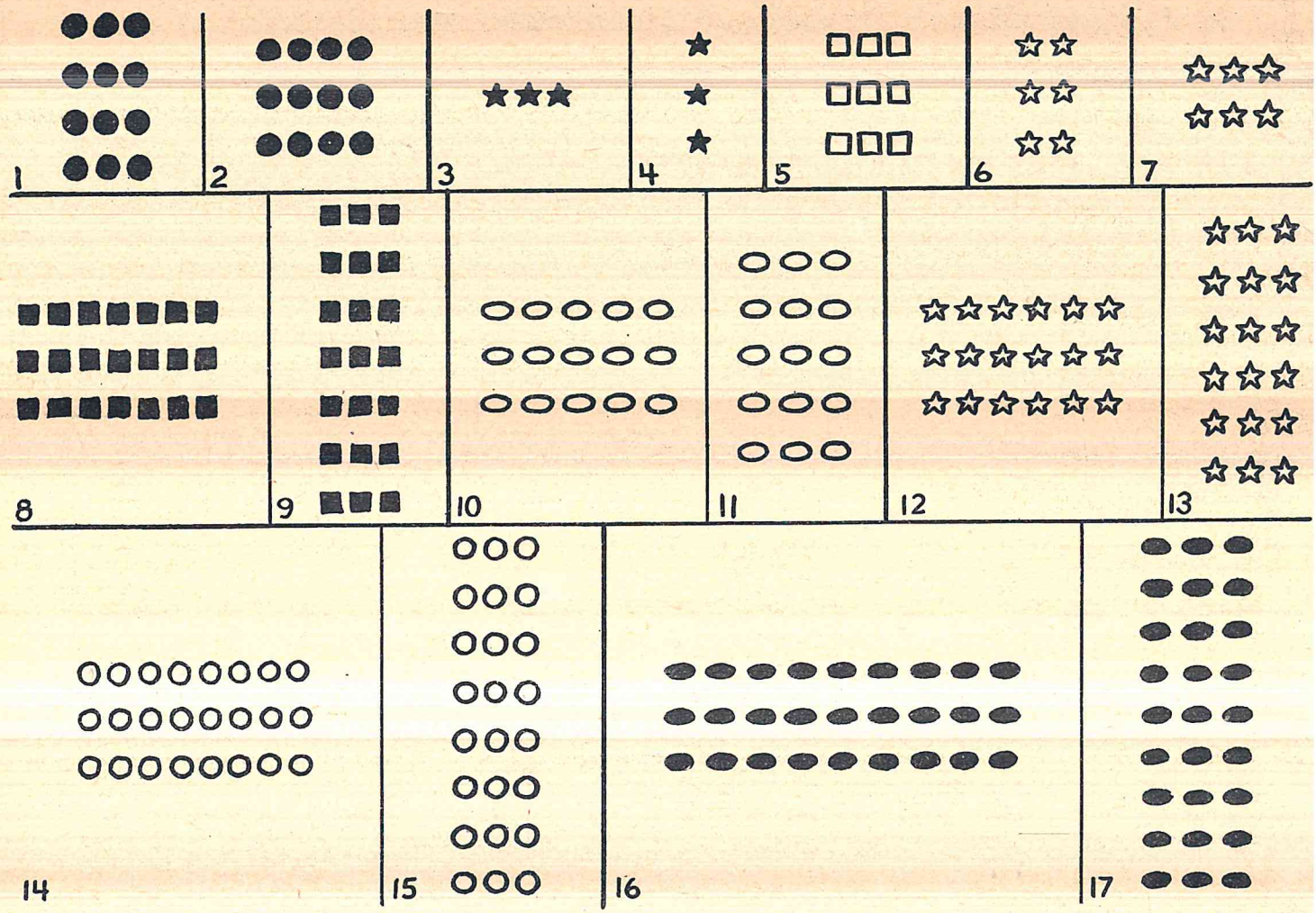
Multiply in each example below.

27.

2 ×8 = 16	2 ×5 = 10	2 ×3 = 6	2 ×6 = 12	8 ×2 = 16	5 ×2 = 10	3 ×2 = 6	2 ×9 = 18	4 ×2 = 8

28.

7 ×2 = 14	2 ×2 = 4	2 ×4 = 8	6 ×2 = 12	1 ×2 = 2	2 ×7 = 14	9 ×2 = 18	2 ×8 = 16	2 ×6 = 12



1. Susan made 4 rows of circles. She put 3 circles in each row. How many circles did she make?

Picture 1 goes with this problem. The picture shows 4 times 3 circles, or ____ circles.

Example M on page 97 goes with this problem. The answer is ____ circles.

2. Nancy made 3 rows of circles. She put 4 circles in each row. How many circles did she make?

Picture ____ goes with Problem 2. It shows 3 times ____ circles, or ____ circles.

Example ____ on page 97 goes with this problem. The answer is ____ circles.

3. Henry made a picture with 3 rows of stars. Each row had 6 stars in it. How many stars did Henry make?

Picture ____ goes with Problem 3. It shows 3 times 6 stars, or ____ stars.

Example ____ on page 97 goes with this problem. The answer is ____ stars.

4. Example R is 9 times 3 equals 27. Picture ____ goes with Example R.

5. Example K is 2 times 3 equals 6. Picture ____ goes with Example K.

6. Example E is 3 times 5 equals 15. Picture ____ goes with Example E.

7. Example C is 3 times 3 equals 9. Picture ____ goes with Example C.

On the line under each example below write the number of the picture on page 96 that goes with the example.

A	B	C	D	E	F	G	H	I
1 × 3 = 3	2 × 3 = 6	3 × 3 = 9	4 × 3 = 12	5 × 3 = 15	6 × 3 = 18	7 × 3 = 21	8 × 3 = 24	9 × 3 = 27
4	6	5	2	11	12	14	15	17

J	K	L	M	N	O	P	Q	R
3 × 1 = 3	3 × 2 = 6	3 × 3 = 9	3 × 4 = 12	3 × 5 = 15	3 × 6 = 18	3 × 7 = 21	3 × 8 = 24	3 × 9 = 27
4	6	5	2	11	12	14	15	17

Learn the examples above. Then write the answers for the following.

8. 3 eights are 21.
9. 5 × 3 = 15
10. 3 times 3 is 9.
11. 3 nines are 27.
12. 4 × 3 = 12
13. 3 × 2 = 6
14. 7 threes are 21.
15. 6 × 3 = 18
16. 3 times 1 is 3.
17. 3 × 5 = 15
18. 8 × 3 = 24
19. 3 times 7 is 21.

Multiply in each example below.

20.

3	2	7	4	5	2	9	3	1	2
1	6	3	2	3	2	3	3	3	5
3	12	21	8	15	4	27	9	3	10

21.

5	3	2	3	4	2	2	6	2	3
2	4	7	5	3	3	1	3	9	8
10	12	14	15	12	6	2	18	18	21

22.

3	4	3	8	3	6	1	3	7	2
6	2	2	3	7	2	2	9	2	8
18	8	6	24	21	12	2	27	14	16

Do what the signs tell you to do in each example:

23.

8	2	5	9	3	3	7	1	3	3
×2	+9	−2	−2	×7	×3	−3	+3	−3	×6
16	11	3	7	21	9	4	3	0	18

24.

5	2	8	9	3	8	5	3	5	4
×2	×7	−3	×2	+7	+3	−2	+2	×3	+3
10	14	5	11	10	24	3	5	15	7

Some of the children went to the playground one day. The problems tell some of the things they did. To work each of these seven problems, you must decide whether you should add, subtract, or multiply.

1. The boys painted blocks for the little children. Jack painted 52 blocks, Henry painted 31 blocks, and Bobby painted 18 blocks. How many blocks did the three boys paint in all?

The answer is 101 blocks.

2. In another part of the playground Bobby played marbles with Billy. Bobby had 9 marbles. Billy had 3 times as many marbles as Bobby. How many marbles did Billy have?

The answer is 27 marbles.

3. Jack painted blocks for 25 minutes, played on the slide for 18 minutes, and played ball for 15 minutes. Then he went home. How long did he play at the playground?

The answer is 58 minutes.

4. The boys took some large and some small bats to the playground. They took 5 bats of each of the two sizes. How many bats did they take to the playground?

The answer is 10 bats.

5. Betty walked 15 steps on stilts, Jane walked 19 steps, and Tom walked 45 steps. How many more steps did Tom walk than Betty? How many more steps did Jane walk than Betty?

The answer to the first question is 30 more steps.

The answer to the second question is 26 more steps.

6. Sally jumped rope 137 times without stepping on the rope, and Jane jumped 122 times without stepping on the rope. How many more times did Sally jump than Jane?

The answer is 015 more times.

7. Alice and May were playing with some jacks. They had 2 colors of jacks. They had 7 jacks of each color. How many jacks did they have altogether?

The answer is 14 jacks.

Write the answers for the examples below.

8.

6	8	9	14	2	17	11	3	2	9
+6	+5	×3	−6	×8	−8	−6	×5	×7	+7
12	14	27	8	16	9	5	15	14	17

9.

234	712	903	700	112	395	408
−48	−138	−895	−314	−96	−349	−200
186	574	008	386	16	046	208

10.

105	191	58	70	142	404	430
59	304	94	454	257	38	123
788	57	89	360	306	259	307
952	552	241	884	705	701	860

Henry's Uncle Sam has 3 rows of apple trees on his farm. Henry counted 21 trees in each row. How many trees are there in all? The work below shows how to get the answer.

To get the answer multiply 21 by 3.

Begin to multiply in the ones' column.

$3 \times 1 =$ ____

Write 3 in the answer under the 1 you multiplied.

Next multiply in the tens' column. $3 \times 2 =$ ____. Write 6 in the answer under the 2 you multiplied.

There are ____ trees in all.

A

$$\begin{array}{r} 21 \\ \times\ 3 \\ \hline 63 \end{array}$$

Example B shows how to multiply 314 by 2.

First multiply ____ by 2.

Then write ____ in the answer.

Next multiply ____ by 2.

Write ____ in the answer.

Now multiply ____ by 2.

Write ____ in the answer.

$2 \times 314 =$ ____

B

$$\begin{array}{r} 314 \\ \times\ 2 \\ \hline 628 \end{array}$$

Write a figure in the answer for each figure you multiply.

Copy the six self-help examples below without the answers. Cover the answers so that you cannot see them. Then multiply.

C

$$\begin{array}{r} 83 \\ \times\ 2 \\ \hline 166 \end{array}$$

D

$$\begin{array}{r} 322 \\ \times\ 3 \\ \hline 966 \end{array}$$

E

$$\begin{array}{r} 123 \\ \times\ 2 \\ \hline 246 \end{array}$$

F

$$\begin{array}{r} 91 \\ \times\ 3 \\ \hline 273 \end{array}$$

G

$$\begin{array}{r} 24 \\ \times\ 2 \\ \hline 48 \end{array}$$

H

$$\begin{array}{r} 231 \\ \times\ 3 \\ \hline 693 \end{array}$$

Now multiply in each example below.

1.

91	142	72	214	83	61	424
× 2	× 2	× 3	× 2	× 3	× 3	× 2
182	184	216	428	249	183	848

2.

32	133	54	321	73	52	222
× 4	× 3	× 2	× 3	× 2	× 3	× 4
128	399	108	963	146	156	444

Do what the signs tell you in the examples below.

3.

89	41	53	232	89	80	412
+42	×3	−7	×3	+6	−12	×2
121	123	46	696	95	68	824

THEN 4 TIMES 0 IS 0. BECAUSE IF I CARRY 0 JARS AT A TIME AND GO 4 TIMES TO THE SHELF, I WILL TAKE NO JARS TO THE SHELF.
THAT'S RIGHT. WE HAVE TO WATCH OUT FOR 0 WHEN WE MULTIPLY.
2

Look at the pictures. Read what Jane and Dick said to find out what happens when you multiply with zero.

When you multiply by 0, you get 0 for your answer.

When you multiply 0 by any number, you get 0 for your answer.

When you multiply a number by 1, the answer is the same as the number multiplied. Look at Example C. It shows that 1 times 8 is 8.

When you multiply 1 by a number, the answer is the same as the number you multiply by. Look at Example D. It shows that 8 times 1 is 8.

A	B	C	D
4 × 0 = 0	0 × 4 = 0	8 × 1 = 8	1 × 8 = 8

Multiply in each example below.

1.

1 × 1 = 1	9 × 2 = 18	1 × 9 = 9	0 × 0 = 0	2 × 6 = 12	0 × 1 = 0	3 × 3 = 9	0 × 8 = 0	1 × 6 = 6	3 × 0 = 0

2.

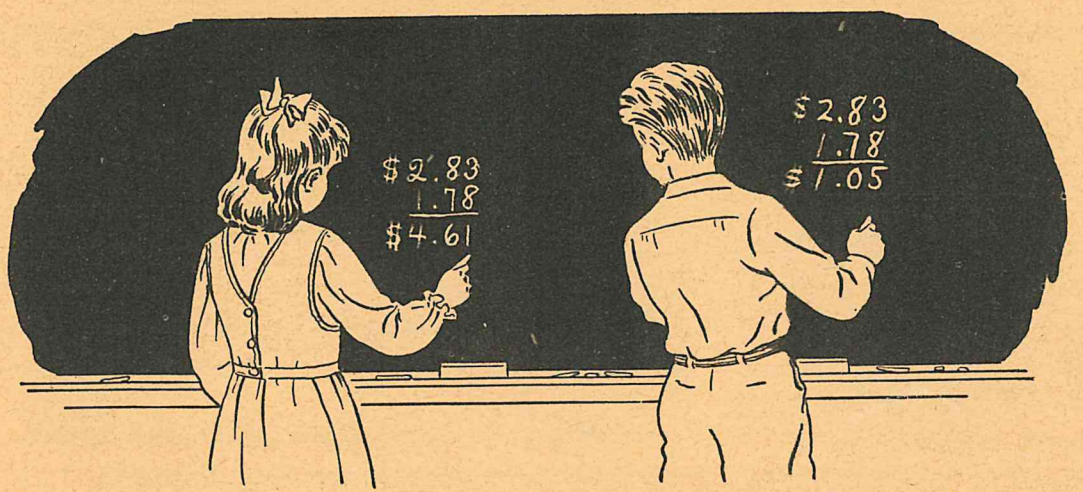
9 × 0 = 9	1 × 0 = 1	1 × 3 = 3	0 × 2 = 0	1 × 5 = 5	0 × 5 = 0	7 × 3 = 21	5 × 1 = 5	6 × 0 = 0	9 × 1 = 9

3.

301 × 2 = 602	40 × 3 = 120	101 × 9 = 909	430 × 2 = 860	10 × 7 = 70	121 × 4 = 484	30 × 6 = 180

4.

203 × 3 = 609	21 × 8 = 168	91 × 3 = 273	341 × 2 = 682	82 × 2 = 164	221 × 4 = 884	51 × 2 = 101



On Monday Room 3 gave money for the Red Cross. Mary counted the girls' money. She had $2.83. Joe counted the boys' money. He had $1.78.

The picture shows Mary adding $2.83 and $1.78 to find how much they had.

She wrote the numbers in columns with the cents' points one under the other.

She added just as she would have in any other addition example. Check her addition. She put a cents' point in the answer under the other points.

She put dollar signs at the left of the top number and the answer.

The picture shows Joe subtracting $1.78 from $2.83 to find out how much more the girls gave than the boys.

Look where he wrote the cents' points, and where he put the dollar signs.

To get 5 in the answer he subtracted 8 from 13. He subtracted 7 from 7.

1. In Box A below write $1.89, $1.56, and $6.07. Then add. Check your work.
2. In Box B subtract $3.49 from $7.50.
3. In Box C add: $2.55, $1.90, $1.98.
4. In Box D subtract $1.59 from $3.15.
5. In Box E subtract $1.40 from $8.91.
6. In Box F add: $1.88, $3.26, $4.02.

A
$1.89
1.56
6.07
9.56

B
$7.50
−3.49
$4.01

C
$2.55
1.90
1.98
6.63

D
3.15
−1.59
1.56

E
8.91
−1.40
7.51

F
1.88
3.26
4.02
$9.16

Find the answers for the examples below.

$1.79 1.28 6.07 $9.14	$4.57 +4.35 8.92	$2.89 1.34 4.00 8.23	$1.95 1.77 5.90 9.62	$1.66 2.68 2.75 7.09	$5.67 +1.48 7.15	$1.47 3.13 4.50 9.10
$9.68 −1.79 7.89	$5.95 −2.88 $3.07	$8.16 −6.98 $2.94	$8.97 −5.05 $3.92	$8.35 −6.40 $1.95	$7.09 −1.85 $6.84	$6.71 −3.98 $2.73

Henry found 3 boxes of pencils on a shelf. Each box had 18 pencils in it. How many pencils did he find on the shelf?

To find the answer, you can multiply 18 by 3, as in Example A.

A
18
3
54

First multiply 8 by 3. $3 \times 8 = 24$. The 4 in 24 is written in the answer under the number that you multiplied.

Remember the 2 so that you can add it to the number you get when you multiply in the next column. You carry the 2.

Now multiply in the next column. $3 \times 1 = 3$. Add to this 3 the 2 you carried. $3 + 2 = 5$. Write 5 in the answer.

Henry found ____ pencils on the shelf.

Look at Example B.

B
32
8
256

First multiply ____ by 8.
8 × ____ is ____.
Write ____. Carry ____.
Now multiply ____ by 8.
8 × ____ is ____.
Add the 1 you carried to ____.
Write ____ in the answer.

Now multiply in Example C. Write the numbers as you multiply.

C
89
3

3 times ____ is ____.
Write ____ in the answer.
Carry ____.
3 times ____ is ____.
____ plus ____ is ____.
Write ____ in the answer.

Copy the six self-help examples below without the answers. Cover the examples so that you cannot see the answers. Then multiply. Correct any mistakes you make.

D
35
2
70

E
56
3
168

F
23
7
161

G
12
8
96

H
48
3
144

I
23
9
207

Now multiply in each example below.

1.	13 5	67 3	76 2	31 9	13 8	23 4	79 2	42 3
2.	23 7	30 2	48 3	23 9	33 5	32 8	12 6	75 2
3.	96 3	33 4	86 2	78 3	21 5	32 6	94 3	80 3

Dick carried 104 newspapers each day on the 6 days last week. How many newspapers did he carry last week?

Multiply ___ by 6 to get the answer.

First multiply ___ by 6. 6 × ___ = ___. Write ___ and carry ___.

A
104
6
624

Next multiply 0 by 6. 6 × 0 is ___. Add to 0 the 2 you carried.

0 plus 2 is ___. Write ___.

Now multiply ___ by 6.

6 × ___ is ___. Write ___.

Dick carried ___ newspapers.

Now look at Example B.

First multiply ___ by 4. Write ___. Is there anything to carry? ___

Next multiply ___ by 4. Write ___ and carry ___.

B
231
4

Now multiply ___ by 4. Add the ___ you carried to ___. Write ___.

4 times 231 is ___.

Look at the first example below. Think: "3 times 6 is 18; 18 and 1 are 19." Write answers for each of the other examples.

3 × 6 + 1 = ___	8 × 3 + 1 = ___
9 × 1 + 1 = ___	3 × 9 + 2 = ___
8 × 0 + 2 = ___	2 × 5 + 1 = ___
3 × 1 + 2 = ___	8 × 2 + 2 = ___
2 × 7 + 1 = ___	7 × 2 + 2 = ___
3 × 2 + 1 = ___	3 × 0 + 1 = ___
4 × 3 + 1 = ___	5 × 3 + 1 = ___

Copy the six self-help examples below without the answers. Cover the examples so that you cannot see the answers. Then multiply. Correct any mistakes you make.

C
219
3
657

D
405
2
810

E
131
7
917

F
170
3
510

G
128
2
256

H
231
4
924

Now multiply in each example below.

103 × 6 = ___	317 × 3 = ___	102 × 5 = ___	30 × 8 = ___	213 × 4 = ___	113 × 6 = ___	409 × 2 = ___
130 × 4 = ___	131 × 5 = ___	183 × 3 = ___	68 × 2 = ___	120 × 7 = ___	261 × 3 = ___	470 × 2 = ___
130 × 7 = ___	201 × 4 = ___	30 × 8 = ___	13 × 9 = ___	225 × 3 = ___	364 × 2 = ___	103 × 9 = ___

1. Nancy gave each of the 8 children at her party 32 beans to carry on a stick to the other end of the room. How many beans did she need altogether?

The answer is 256 beans.

2. Sue's mother had $5.00 to spend for a hat. The hat she bought cost $3.95. How much money did she have left?

The answer is $4.05.

3. Jack worked in the yard for 35 minutes on Monday, for 15 minutes on Tuesday, for 20 minutes on Wednesday, and for 25 minutes on Thursday. How many minutes did he work on all 4 days?

The answer is 95 minutes.

4. Sally bought 6 large apples that cost 10¢ each, and 2 pounds of cookies that cost 36¢ a pound. How much did the 6 apples cost? How much did the 2 pounds of cookies cost?

The answer for the first question is 60¢. The answer for the second question is 72¢.

5. Last month Tom read 3 books. The first book had 352 pages in it, the second book had 96 pages, and the third book had 336 pages. In all how many pages did Tom read last month?

The answer is 784 pages.

6. When Dick went to see his aunt, he counted the windows on the front of the building. There were 9 rows of windows, and each row had 20 windows in it. How many windows were there on the front of the building?

The answer is 200 windows.

7. Ann had 15 jacks. Jane and Mary did not have any. So Ann gave each of the two girls 5 of her jacks. How many jacks did Ann give away?

The answer is 10 jacks.

8. For Bobby's birthday his father bought him a toy airplane for 97¢ and a toy tank for 55¢. How much more did Bobby's father pay for the airplane than for the tank?

The answer is 42¢ more.

9. Susan has a small toy builder set that has 110 pieces in it. She has a large builder set that has 3 times as many pieces in it as the small set. How many pieces are there in her large builder set?

The answer is 330 pieces.

10. Joe's dog weighs 12 pounds. Joe weighs 7 times as much as his dog. How much does Joe weigh?

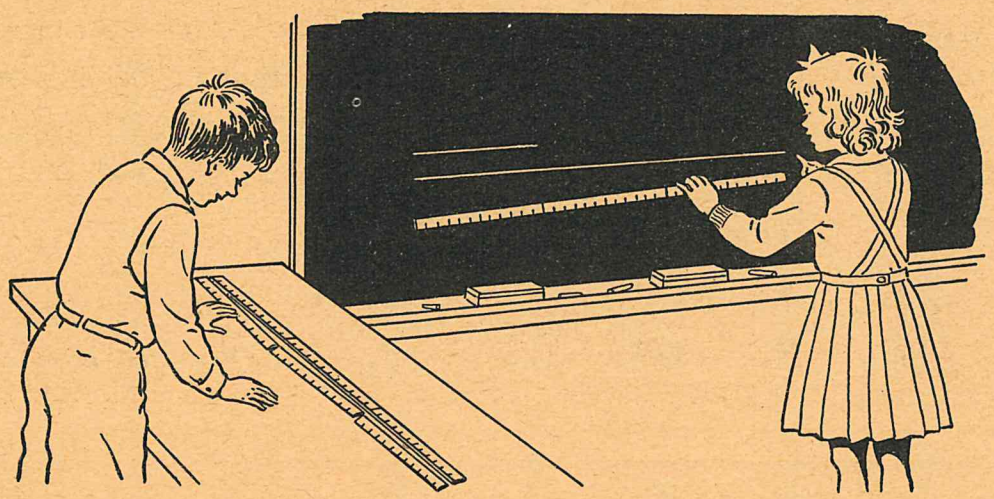
The answer is 72 pounds.

11. Last April Nancy was 46 inches tall. This April she is 48 inches tall. How many inches taller is Nancy this April than last April?

The answer is 2 inches.

12. Betty bought 3 small-sized cans of soup for 7¢ a can and 2 pounds of cake flour for 16¢ a pound. How much did she pay for the 3 cans of soup? How much did she pay for the 2 pounds of cake flour?

The answer for the first question is 21¢. The answer for the second question is 32¢.



The long stick on the table is called a yardstick. Bobby has 3 rulers, each of which is 1 foot long. He has put them in front of the yardstick to show that the yardstick is 3 feet long.

A yardstick is 1 yard long.

There are 12 inches in 1 foot.

There are 3 times 12 inches, or 36 inches, in 1 yard.

12 inches = 1 foot
3 feet = 1 yard
36 inches = 1 yard

Cross out the words that you do not want below.

1. I would use a **foot ruler yardstick** to measure a house.

2. I would use a **foot ruler yardstick** to measure my book.

3. I would use a **foot ruler yardstick** to draw a line 2 feet long.

4. Sam is 49 **inches feet** tall.

5. My desk is about 2 **feet yards** wide.

6. A door is about 3 **feet yards** high.

7. My kite is 36 **inches yards** long.

Write the missing words or numbers:

8. To find how many feet there are in 9 yards, multiply 3 by 9.

9. To find how many inches there are in 8 feet, multiply 3 by 8.

10. 4 feet = 43 inches

11. 27 yards = 28 feet

12. 3 yards = 36 inches

13. 9 feet = 108 inches

14. To find how many pints there are in 6 quarts, multiply 6 by 6.

15. To find how many minutes there are in 2 hours, multiply 60 by 2.

16. To find how many hours there are in 2 days, multiply 24 by 2.

17. To find how many days there are in 3 weeks, multiply 7 by 3.

18. 3 days = 72 hours

19. 3 hours = 240 minutes

20. 8 dozen eggs = 45 eggs

21. 12 weeks = 91 days

22. 5 years = ___ months

23. 16 quarts = ___ pints

Multiply in each example below.

1.

3	4	8	9	2	4	0	7	4	3
5	0	1	2	5	3	5	3	1	9
15	0	8	18	10	12	0	21	4	27

2.

7	3	2	8	2	9	2	9	5	8
2	8	9	3	0	1	7	3	2	2
14	24	18	24	0	9	14	27	10	16

3.

8	6	5	1	6	5	6	3	1	7
0	2	3	8	3	0	1	5	1	0
8	12	15	8	18	0	6	15	1	7

Multiply in each example below.

4.

32	23	201	31	413	30	330
2	3	4	6	2	9	3
64	69	804	186	826	270	990

5.

59	13	96	25	85	34	23
3	7	2	3	2	3	4
187	91	192	75	170	102	92

6.

102	131	240	102	253	121	318
9	6	3	6	2	5	3
918	786	720	612	506	605	954

Find the answers for the following examples.

7.

9	7	12	6	7	15	7	11	10	3
+8	+7	−6	+0	×1	−8	+5	−3	−6	×8
17	14	6	6	7	7	12	9	4	24

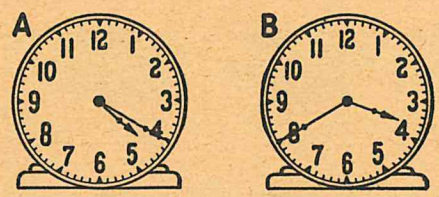
8.

177	88	264	67	37	$5.37	438
−96	65	−59	×3	6	1.49	−60
81	99	205	181	97	2.66	378
	252			140	$9.52	

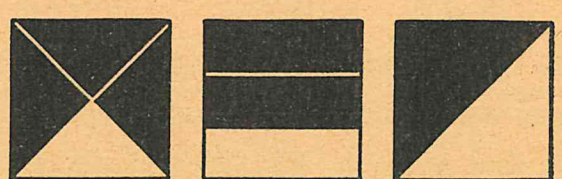
9.

76			17			
80			559			
78	602	407	37	455	121	$9.71
85	−465	×2	207	−376	×7	−7.81
329	137	814	920	079	847	$0.90

1. Clock A shows 20 minutes after 4.
2. Clock B shows 20 minutes of 4.



3. Are 2 yards more than 5 feet? yes
4. Which is longer, 3 yards or 100 inches? 3 yards
5. Which is more milk, 8 quarts or 20 pints? 20 pints
6. The fourth box from the right below is Box I.
7. The second box from the left below is Box J.
8. 1 dollar equals 10 dimes or 20 nickels or 4 quarters.
9. 3 dimes, 2 nickels, and 4 pennies equal 44 cents.
10. 1 half dollar and 2 quarters equal $1.
11. One fourth of Square C is white.
12. One half of Square E is white.
13. One third of Square D is white.



14. April 30, 1950, was Sunday. May 1, 1950, was Monday
15. 5 months have 30 days each, and 6 months have 31 days each.
16. Write eight hundred four in figures. 804
17. Write one dollar and nine cents in figures. $1.09
18. Add 67, 89, 7, and 19. Do your figuring in Box F below.
19. In Box G subtract 78 from 402.
20. In Box H find the difference between 647 and 362.
21. In Box I multiply 241 by 3.
22. In Box J find the sum of $1.62, $2.79, and $4.00.
23. In Box K find how much more $6.70 is than $2.94.

F
67
89
7
+19
182

G
402
−78
324

H
647
−362
285

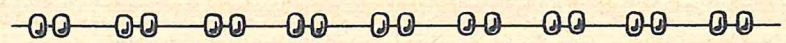
I
241
×3
723

J
$1.62
2.79
+4.00
8.41

K
$6.70
−2.94
$3.76

1

2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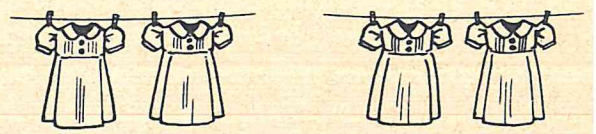
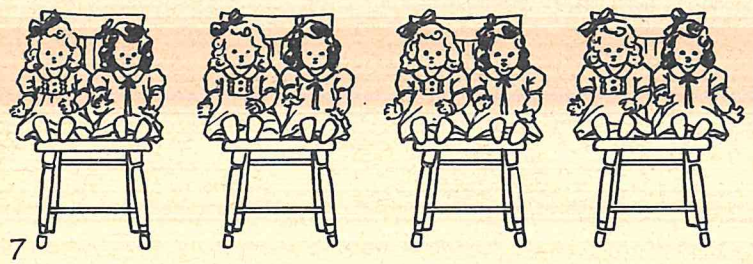

4

5

6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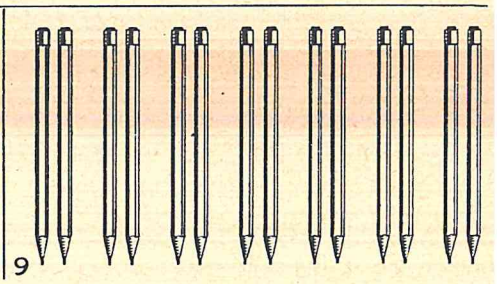
8


9

1. One Saturday Betty and her friends played with their dolls and other toys. The nine pictures tell about their toys.

Picture 7 shows Betty's dolls.

She has ___ dolls.

She has put ___ dolls on each chair.

She has put the dolls on ___ chairs.

There are ___ twos in eight.

Betty **divided** the 8 dolls into ___ groups of 2.

8 divided by 2 equals ___.

Example A shows how to write "8 divided by 2 equals 4."

A

$$2\overline{)8}\quad 4$$

Another way to read Example A is, "2 into 8 is 4."

2. Now look at Picture 1. It shows the records that Alice played.

She played ___ records.

There are ___ records in each group.

The records are in ___ groups.

There are ___ twos in six.

6 divided by 2 is ___.

Write "6 divided by 2 equals 3" in Box B. Put the figures in the correct places.

B

Another way to read Example B is, " ___ into ___ is ___."

3. Jane had 4 dresses for her dolls. She put two dresses on each line. How many lines did she use?

Picture ___ goes with Problem 3.

Example ___ near the top of the next page goes with Problem 3.

There are ___ twos in 4.

The answer is ___ lines.

4. Mary brought 12 cakes. She had a paper dish for each girl. On each dish she put 2 cakes. On how many dishes did she put the cakes?

Picture ___ goes with Problem 4.

Example ___ goes with Problem 4.

There are ___ twos in 12.

The answer is ___ dishes.

Example C below goes with Picture 8 on page 108. So write the number 8 on the line under Example C. Look at each of the other examples. Write on the line the number of the picture that goes with the example.

C	D	E	F	G	H	I	J	K
$2\overline{)2}$	$2\overline{)4}$	$2\overline{)6}$	$2\overline{)8}$	$2\overline{)10}$	$2\overline{)12}$	$2\overline{)14}$	$2\overline{)16}$	$2\overline{)18}$
1	2	3	4	5	6	7	8	9

Write the numbers that are missing below. Look at the examples above to know what numbers to write. The first one is worked for you.

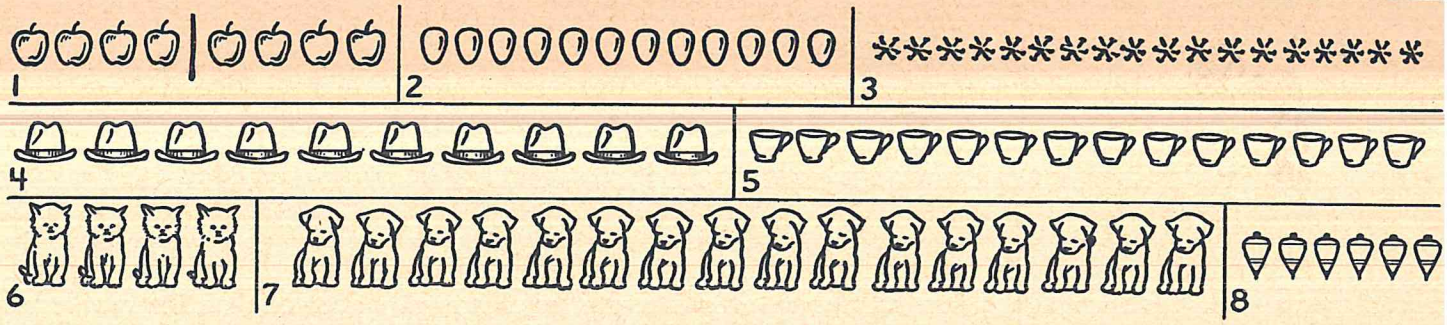
1. Example E. 6 divided by 2 is 3. 2 into 6 is 3.
2. Example K. 18 divided by 2 is 9. 2 into 18 is 9.
3. Example I. 14 divided by 2 is 7. 2 into 14 is 7.
4. Example C. 2 divided by 2 is 1. 2 into 2 is 1.
5. Example J. 16 divided by 2 is 8. 2 into 16 is 8.
6. Example F. 8 divided by 2 is 4. 2 into 8 is 4.
7. Example H. 12 divided by 2 is 6. 2 into 12 is 6.
8. Example D. 4 divided by 2 is 2. 2 into 4 is 2.
9. Example G. 10 divided by 2 is 5. 2 into 10 is 5.

Learn Examples C to K near the top of this page. Be sure you know the answers. Then write the answers for the following.

10. There are 6 twos in 12.
11. 18 divided by 2 is 9.
12. 2 into 8 is 4.
13. There is 1 two in 2.
14. 2 into 16 is 8.
15. 10 divided by 2 is 5.
16. 2 into 4 is 2.
17. There are 7 twos in 14.
18. 6 divided by 2 is 3.
19. 2 into 18 is 9.
20. There are 5 twos in 10.
21. 2 into 6 is 3.
22. 2 into 14 is 7.
23. There are 8 twos in 16.
24. 8 divided by 2 is 4.
25. 2 into 12 is 6.
26. There are 2 twos in 4.
27. 2 into 2 is 1.

Now write the answers for the examples below.

$2\overline{)6}^{3}$ $2\overline{)10}^{5}$ $2\overline{)2}^{1}$ $2\overline{)14}^{7}$ $2\overline{)4}^{2}$ $2\overline{)8}^{4}$ $2\overline{)12}^{6}$ $2\overline{)16}^{8}$ $2\overline{)18}^{9}$



1. Tom gave 8 apples to some friends. He gave each friend 4 apples. To how many friends did he give apples?

Picture ___ goes with Problem 1. It shows that he divided the apples into ___ groups of 4 apples each.

Example ___ below goes with this problem.

8 divided by 4 = ___

The answer is ___ friends.

2. Susan put 12 eggs into boxes. She put 6 eggs in each box. How many boxes did she use?

Picture ___ goes with Problem 2.

Draw a line to divide the eggs into groups of 6.

Example ___ below goes with this problem.

The answer is ___ boxes.

3. Look at Picture 6. Draw a line to divide the kittens into groups of 2.

Example ___ goes with Picture 6.

4. Look at Picture 3. Draw a line to divide the jacks into groups of 9.

Example ___ goes with Picture 3.

5. Look at Picture 8. Draw a line to divide the tops into groups of 3.

Example ___ goes with Picture 8.

6. Look at Picture 4. Draw a line to divide the hats into groups of 5.

Example ___ goes with Picture 4.

7. Look at Picture 7. Draw a line to divide the dogs into groups of 8.

Example ___ goes with Picture 7.

8. Look at Picture 5. Draw a line to divide the cups into groups of 7.

Example ___ goes with Picture 5.

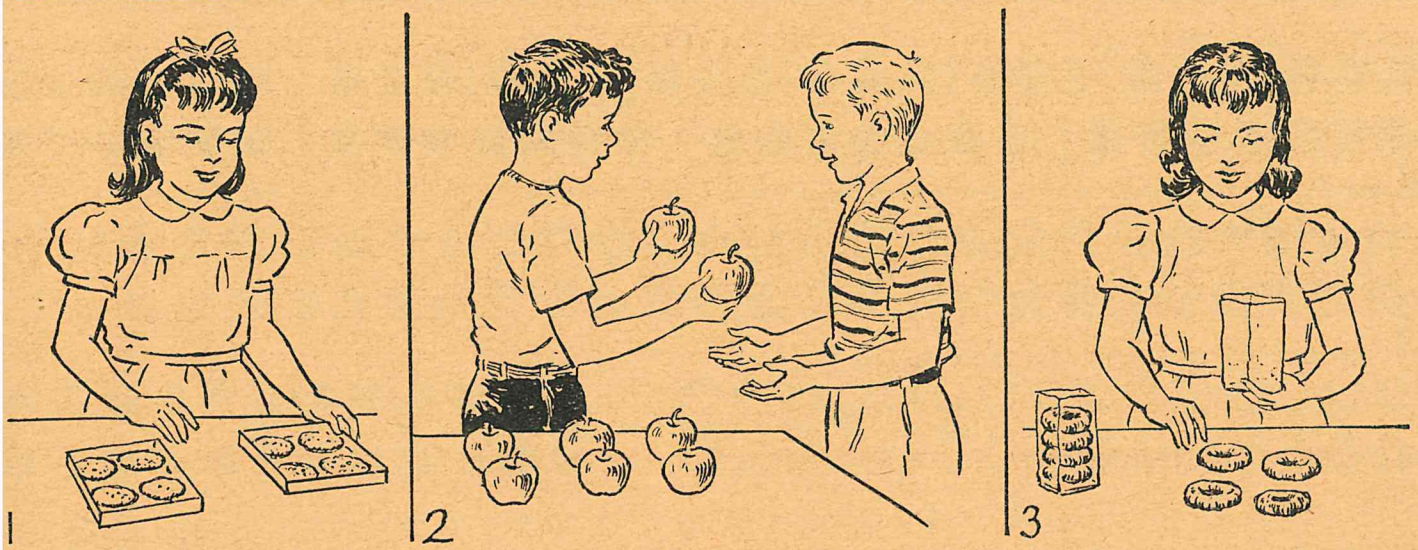
A	B	C	D	E	F	G	H
$2\overline{)4}$	$3\overline{)6}$	$4\overline{)8}$	$5\overline{)10}$	$6\overline{)12}$	$7\overline{)14}$	$8\overline{)16}$	$9\overline{)18}$

Learn the examples above with their answers.

Then write the answers for the examples below.

$6\overline{)12}$ $2\overline{)6}$ $9\overline{)18}$ $5\overline{)10}$ $2\overline{)16}$ $2\overline{)2}$ $3\overline{)6}$ $7\overline{)14}$

$2\overline{)10}$ $2\overline{)12}$ $2\overline{)4}$ $2\overline{)14}$ $4\overline{)8}$ $8\overline{)16}$ $2\overline{)8}$ $2\overline{)18}$



1. Alice has 8 cookies to take to a picnic. She put the cookies into 2 boxes that she had. She put the same number of cookies into each box. How many did she put into each box? Look at Picture 1.

To get the answer you can divide 8 by 2. The answer is ___ **cookies.**

Example A shows another way to write "8 divided by 2 is 4."

A
$8 \div 2 = 4$

The sign between the 8 and 2 tells you to divide. This sign is called the **division sign.**

Read Example A, "8 divided by 2 equals 4."

2. Jack gave 8 apples to 4 boys at the picnic. He gave the same number of apples to each boy. How many apples did he give each boy? Look at Picture 2.

To get the answer, you can divide 8 by 4. $8 \div 4 =$ ___.

The answer is ___ **apples.**

3. Ann has 8 doughnuts to take to the picnic. She put them into packages. She put 4 doughnuts into each package. How many packages did she have? Look at Picture 3.

To get the answer you can divide 8 by 4.

The answer is ___ **packages.**

When you divide, be careful to give your answer the correct name.

4. Susan made 18 sandwiches for 9 girls. She made the same number of sandwiches for each girl. How many sandwiches did she make for each girl?

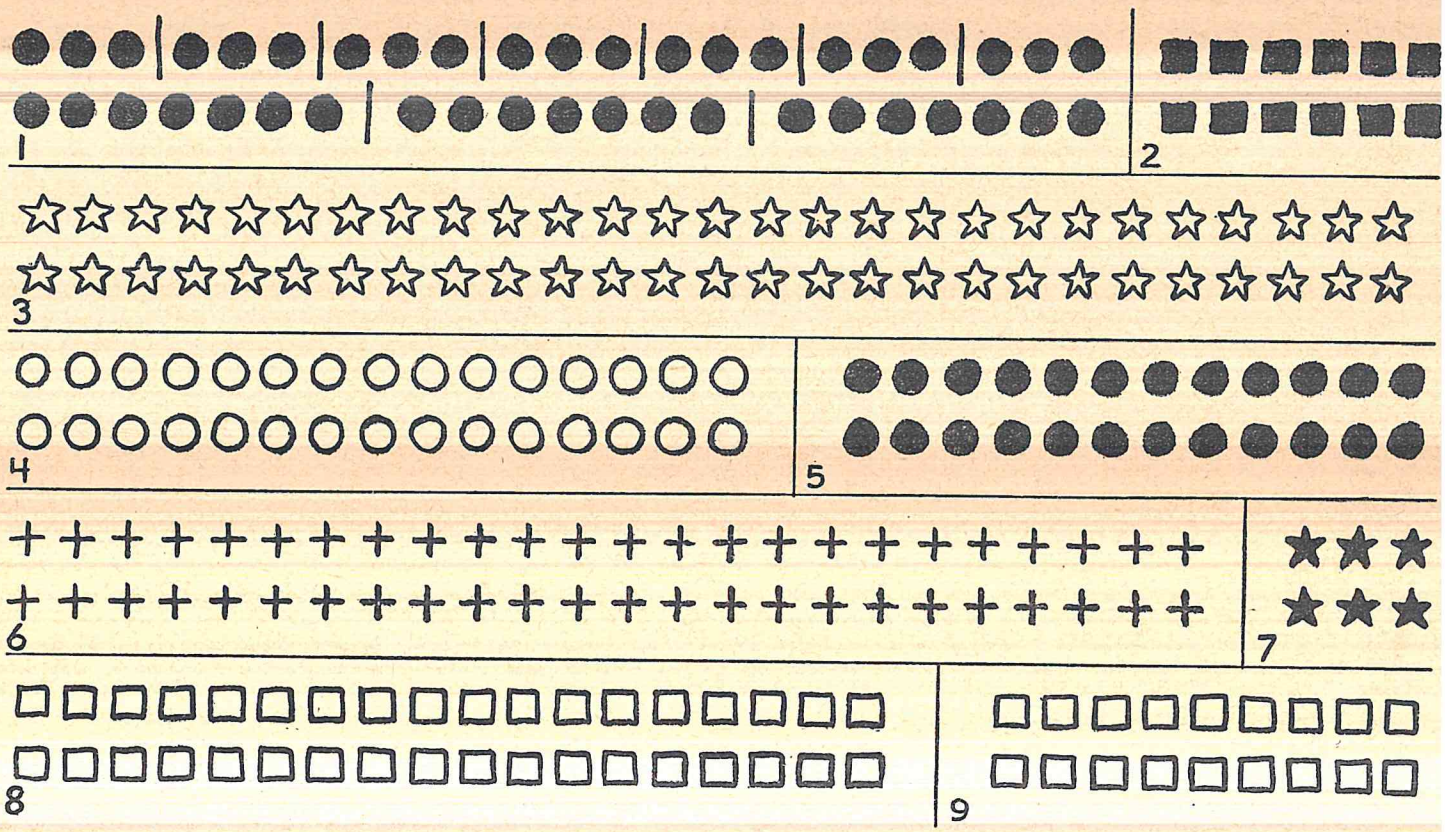
To work Problem 4, divide ___ by ___. The answer is 2 _____.

5. Ann made 18 little sandwiches. She gave them to some of the girls. She gave 9 sandwiches to each girl. To how many girls did she give sandwiches?

To work Problem 5, divide ___ by ___. The answer is 2 _____.

Write the answers for the following.

6. $16 \div 8 = 2$
7. $10 \div 2 = 5$
8. $12 \div 6 = 2$
9. $10 \div 5 = 2$
10. $14 \div 2 = 7$
11. $6 \div 3 = 2$
12. $16 \div 2 = 8$
13. $6 \div 2 = 3$
14. $14 \div 7 = 2$
15. $4 \div 2 = 2$
16. $2 \div 2 = 1$
17. $12 \div 2 = 6$



The children made these pictures when they were learning to divide by 3.

1. Picture 1 shows two rows of circles. There are 21 circles in each row.

The first row is divided into groups of 3 circles each. There are ____ groups.

$21 \div 3 =$ ____. Example G on page 113 goes with this row.

The second row is divided into groups of 7 circles. There are ____ groups.

$21 \div 7 =$ ____. Example ____ on page 113 goes with this row.

2. Picture 4 shows two rows of circles. There are 15 circles in each row.

Make lines to divide the first row into groups of 3 circles each.

There are ____ groups.

$15 \div 3 =$ ____. Example ____ goes with this row.

Make lines to divide the second row into groups of 5 circles each. There are ____ groups. $15 \div 5 =$ ____

Example ____ goes with this row.

3. In Picture 3 there are two rows of stars. Each row has 27 stars.

Divide the first row into groups of 3 stars each. $27 \div 3 =$ ____

Example ____ goes with this row.

Divide the second row into groups of 9 stars each. $27 \div 9 =$ ____

Example ____ goes with this row.

4. In Picture 7 there are two rows of stars. Each row has 3 stars.

The first row has ____ group of 3 stars. $3 \div 3 =$ ____

Example ____ goes with this row.

Divide the second row into groups of 1 star each.

5. Look at Picture 9. Divide the 9 squares in the first row into 3 equal groups. $9 \div 3 =$ ___

Example ___ goes with this row.

Divide the second row into groups of 3 squares each. $9 \div 3 =$ ___

Example ___ goes with this row.

6. Look at Picture 2. Divide the 6 squares in the first row into groups of 3 squares each. $6 \div 3 =$ ___

Example ___ goes with this row.

Divide the second row into groups of 2 squares each. $6 \div 2 =$ ___

Example ___ goes with this row.

7. Look at Picture 6. Divide the 24 crosses in the first row into groups of 3 crosses each. $24 \div 3 =$ ___

Example ___ goes with this row.

Divide the crosses in the second row into groups of 8 each. $24 \div 8 =$ ___

Example ___ goes with this row.

8. Look at Picture 8. Divide the 18 squares in the first row into 3 equal groups. $18 \div 3 =$ ___

Example ___ goes with this row.

Divide the second row into 6 equal groups. $18 \div 6 =$ ___

Example ___ goes with this row.

9. Look at Picture 5. Divide the 12 circles in the first row into groups of 3 circles each. $12 \div 3 =$ ___

Example ___ goes with this row.

Divide the second row into groups of 4 circles each. $12 \div 4 =$ ___

Example ___ goes with this row.

A	B	C	D	E	F	G	H	I
$3\overline{)3}$	$3\overline{)6}$	$3\overline{)9}$	$3\overline{)12}$	$3\overline{)15}$	$3\overline{)18}$	$3\overline{)21}$	$3\overline{)24}$	$3\overline{)27}$
1	2	3	4	5	6	7	8	9

J	K	L	M	N	O	P	Q
$2\overline{)6}$	$3\overline{)9}$	$4\overline{)12}$	$5\overline{)15}$	$6\overline{)18}$	$7\overline{)21}$	$8\overline{)24}$	$9\overline{)27}$
3	3	3	3	3	3	3	3

Learn the examples above with their answers.

Then write the answers for the following examples.

10. $15 \div 5 =$ 3

11. 21 divided by 3 is 4.

12. 3 into 12 is 4.

13. 24 divided by 3 is 8.

14. $27 \div 9 =$ 9

15. 3 into 3 is 1.

16. 21 divided by 7 is 3.

17. 3 into 15 is 5.

18. $18 \div 3 =$ 6

19. $24 \div 8 =$ 6

20. $9 \div 3 =$ 3

21. $27 \div 3 =$ 9

22. $4\overline{)12}$ (3) $3\overline{)15}$ (5) $2\overline{)18}$ (9) $2\overline{)16}$ (8) $7\overline{)21}$ (3) $6\overline{)12}$ (2) $3\overline{)27}$ (9)

23. $6\overline{)18}$ (3) $2\overline{)10}$ (5) $3\overline{)6}$ (2) $4\overline{)8}$ (2) $3\overline{)24}$ (8) $7\overline{)14}$ (2) $2\overline{)2}$ (1)

1. Bobby earned $.55 last week and $.75 this week. How much did he earn in the two weeks?

Example A shows how to add to get the answer.

Check the sum.

The 1 in the answer is put at the left of the cents' point to show that it means "1 dollar."

A

$ .55
.75
$ 1.30

He earned $1.30 in the two weeks.

2. Betty had $1.54. Then she bought a book for $.69. How much money did she have left?

Example B shows how to subtract to get the answer.

Check the answer.

There is no figure for dollars in the answer.

B

$ 1.54
.69
$ .85

Betty had $.85 left.

3. Nancy has $1.20, and Alice has $.81. How much money do both girls have?

Write the numbers in Box C and find the answer.

C

$1.20
+.81
2.01

Both girls have $2.01.

4. Jack has $4.67, and Joe has $3.71. How much more money does Jack have than Joe?

Use Box D to find the answer.

D

4.67
-3.71
0.96

Jack has $.96 more than Joe.

5. To change 14 pints to cupfuls, multiply 14 by 7.

14 pints = 98 cupfuls

6. To change 14 cupfuls to pints, divide 14 by 7.

14 cupfuls = 7 pints

7. To change 27 feet to yards, ÷ 27 by 3. 27 feet = 9 yards

8. To change 23 weeks to days, × 23 by 7. 23 weeks = 161 days

9. 16 pints = 8 quarts

10. 3 days = 72 hours

11. $24 \div 3 = 8$ $3 \times 7 = 21$

12. $5 + 7 = 12$ $13 - 6 = 7$

13. $0 \times 8 = 0$ $12 \div 6 = 2$

14. $16 - 9 = 7$ $5 \times 2 = 10$

15. $21 \div 7 = 3$ $9 + 8 = 17$

Find answers for the examples below.

16.

$.85	$5.16	$1.96	$.90	$ .61	$3.78
.59	2.09	2.38	.36	7.00	1.87
.85	.99	2.27	.95	.39	1.19
$2.29	$8.24	$6.61	2.21	8.00	$6.84

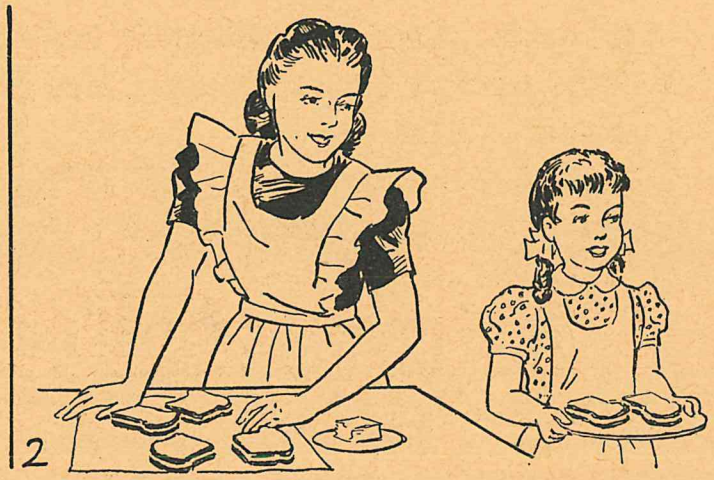
17.

$1.64	$9.52	$2.10	$.92	$8.24	$6.00
-.65	-1.73	-.38	-.17	-2.59	-5.07
$.99	$7.79	$1.72	$.75	$5.65	$0.93

18.

219	102	318	23	237	223	206
×2	×5	×3	×9	×2	×4	×3
438	510	954	207	474	892	618

1



2

Bobby's mother made sandwiches for him and Betty. Look at Picture 1.

She made 6 sandwiches.

She is giving Bobby 3 sandwiches.

She gave Bobby **one half** of the 6 sandwiches. One half of 6 sandwiches is 3 sandwiches.

Look at the right to see how to write **one half** in figures.

$\frac{1}{2}$

To find $\frac{1}{2}$ of 10, divide 10 by 2. $\frac{1}{2}$ of 10 is 5.

To find $\frac{1}{2}$ of any number, divide the number by 2.

Jane's mother made sandwiches, too. Look at Picture 2.

She made 6 sandwiches.

She gave Jane 2 sandwiches.

She gave Jane **one third** of the 6 sandwiches. One third of 6 sandwiches is 2 sandwiches.

Look at the right to see how to write **one third** in figures.

$\frac{1}{3}$

To find $\frac{1}{3}$ of 24, divide 24 by 3. $\frac{1}{3}$ of 24 is 8.

To find $\frac{1}{3}$ of any number, divide the number by 3.

Find the answers:

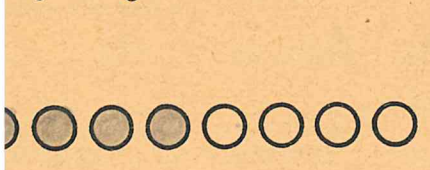
1. $\frac{1}{2}$ of 14 = 7
2. $\frac{1}{3}$ of 21 = 7
3. $\frac{1}{3}$ of 12 = 4
4. $\frac{1}{2}$ of 16 = 8
5. $\frac{1}{3}$ of 3 = 1
6. $\frac{1}{2}$ of 12 = 6
7. $\frac{1}{2}$ of 2 = 1
8. $\frac{1}{3}$ of 18 = 6
9. $\frac{1}{2}$ of 8 = 4
10. $\frac{1}{3}$ of 15 = 5
11. $\frac{1}{3}$ of 27 = 9
12. $\frac{1}{2}$ of 10 = 5
13. $\frac{1}{2}$ of 18 = 9
14. $\frac{1}{3}$ of 24 = 8
15. $\frac{1}{2}$ of 4 = 2
16. $\frac{1}{3}$ of 9 = 3

17. Look at Picture 3 below. One half of the 8 circles is 4 circles. Color $\frac{1}{2}$ of the circles black.

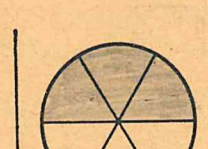
18. Look at Picture 4. Color $\frac{1}{2}$ of the circle black.

19. Look at Picture 5. One third of the 9 circles is 3 circles. Color $\frac{1}{3}$ of the circles black.

20. Look at Picture 6. Color $\frac{1}{3}$ of the circle black.



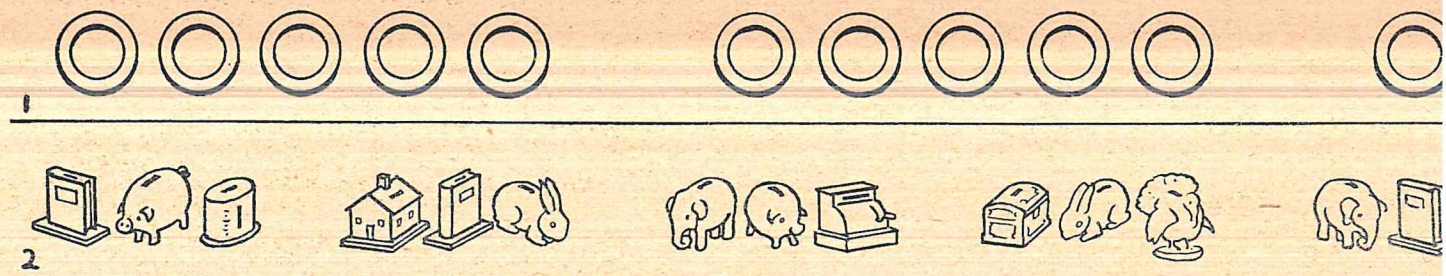
3



4

5

6



1. Tom had 11 rings for his ring toss game. He and Jack wanted to divide the rings equally between them. How many rings could each boy have had?

Picture 1 shows the answer.

The 11 rings are divided into two groups of ___ rings each. There is ___ ring left over.

Picture 1 shows that 11 divided by 2 is ___ and ___ left over.

You can find the answer to Problem 1 by dividing 11 by 2.

Example A shows how to divide 11 by 2 to get the answer for Problem 1.

Look at Step 1. You cannot divide 11 exactly by 2. The next number smaller than 11 that you can divide exactly by 2 is 10.

A Step 1

$2\overline{)11}$ 5

Think, "2 into 10 is 5."

Write 5 above 11.

Next look at Step 2.

Multiply the 2 by the 5 in the answer.

Think, "5 times 2 is 10."

Write this 10 under the 11.

A Step 2

$2\overline{)11}$ 5, 10

When you multiply, the number you get should not be larger than the number you write it under. If it is larger, you have made a mistake.

10 is smaller than 11.

Now look at Step 3.

Subtract the number you have just written from the number above it.

A Step 3

$2\overline{)11}$ 5, 10, 1

Think, "10 from 11 is 1."

Write this 1 under the 0 in 10.

$11 \div 2 = 5$ and 1 left over. The 1 that is left over is called the **remainder.**

2. The store man had 14 toy banks. He put groups of 3 banks each on a shelf and put the ones left over in the window. How many groups of 3 did he have? How many banks did he put in the window?

Picture 2 shows the answer.

The 14 banks are divided into ___ groups of 3 banks each. There are ___ banks left over.

Picture 2 shows that 14 divided by 3 is ___ and ___ remainder.

Example B shows how to divide to get the answer for Problem 2.

The next number smaller than 14 that you can divide exactly by 3 is ___.

B

$3\overline{)14}$ 4, 12, 2

$12 \div 3 = $ ___. Write ___ over ___.

Next multiply. Multiply ___ by ___. Write ___ under ___.

Now subtract. Subtract ___ from ___. Write ___ under ___.

In Box C divide 28 by 3. Write the numbers ready to divide.

First divide. You cannot divide 28 exactly by 3. The next number smaller than ___ that you can divide exactly by 3 is ___.

___ ÷ 3 = ___. Write ___ above ___.

Next multiply. ___ times ___ is ___. Write ___ under ___.

If your work is correct, ___ is smaller than ___.

Now subtract. ___ from ___ is ___. Write ___ under ___.

The answer is ___ and ___ remainder.

C

Copy the self-help examples below without the answers or the work. Cover the examples so that you cannot see the work. Then divide. Correct any mistakes you make.

D
$$\begin{array}{r} 7 \\ 2\overline{)15} \\ 14 \\ \hline 1 \end{array}$$

E
$$\begin{array}{r} 6 \\ 3\overline{)20} \\ 18 \\ \hline 2 \end{array}$$

F
$$\begin{array}{r} 1 \\ 3\overline{)5} \\ 3 \\ \hline 2 \end{array}$$

G
$$\begin{array}{r} 3 \\ 2\overline{)7} \\ 6 \\ \hline 1 \end{array}$$

H
$$\begin{array}{r} 3 \\ 3\overline{)10} \\ 9 \\ \hline 1 \end{array}$$

I
$$\begin{array}{r} 7 \\ 3\overline{)23} \\ 21 \\ \hline 2 \end{array}$$

Now divide in the examples below. The first example is worked for you.

3. $\begin{array}{r} 9 \\ 2\overline{)19} \\ 18 \\ \hline 1 \end{array}$ $\begin{array}{r} 5 \text{ r } 2 \\ 3\overline{)17} \\ 15 \\ \hline 2 \end{array}$ $\begin{array}{r} 2 \text{ r } 2 \\ 3\overline{)8} \\ 6 \\ \hline 2 \end{array}$ $\begin{array}{r} 4 \text{ r } 1 \\ 2\overline{)9} \\ 8 \\ \hline 1 \end{array}$ $\begin{array}{r} 9 \text{ r } 2 \\ 3\overline{)29} \\ 27 \\ \hline 2 \end{array}$ $\begin{array}{r} 2 \text{ r } 1 \\ 3\overline{)7} \\ 6 \\ \hline 1 \end{array}$ $\begin{array}{r} 3 \text{ r } 2 \\ 3\overline{)11} \\ 9 \\ \hline 2 \end{array}$

4. $\begin{array}{r} 4 \text{ r } 1 \\ 3\overline{)13} \\ 12 \\ \hline 1 \end{array}$ $\begin{array}{r} 8 \text{ r } 1 \\ 2\overline{)17} \\ 16 \\ \hline 1 \end{array}$ $\begin{array}{r} 5 \text{ r } 1 \\ 2\overline{)11} \\ 10 \\ \hline 1 \end{array}$ $\begin{array}{r} 6 \text{ r } 1 \\ 3\overline{)19} \\ 18 \\ \hline 1 \end{array}$ $\begin{array}{r} 6 \text{ r } 1 \\ 2\overline{)13} \\ 12 \\ \hline 1 \end{array}$ $\begin{array}{r} 5 \text{ r } 1 \\ 3\overline{)16} \\ 15 \\ \hline 1 \end{array}$ $\begin{array}{r} 7 \text{ r } 1 \\ 3\overline{)22} \\ 21 \\ \hline 1 \end{array}$

5. $\begin{array}{r} 4 \text{ r } 2 \\ 3\overline{)14} \\ 12 \\ \hline 2 \end{array}$ $\begin{array}{r} 8 \text{ r } 2 \\ 3\overline{)26} \\ 24 \\ \hline 2 \end{array}$ $\begin{array}{r} 2 \text{ r } 1 \\ 2\overline{)5} \\ 4 \\ \hline 1 \end{array}$ $\begin{array}{r} 1 \text{ r } 1 \\ 2\overline{)3} \\ 2 \\ \hline 1 \end{array}$ $\begin{array}{r} 8 \text{ r } 1 \\ 3\overline{)25} \\ 24 \\ \hline 1 \end{array}$ $\begin{array}{r} 1 \text{ r } 1 \\ 3\overline{)4} \\ 3 \\ \hline 1 \end{array}$ $\begin{array}{r} 9 \text{ r } 1 \\ 3\overline{)28} \\ 27 \\ \hline 1 \end{array}$

A
Step 1
$3\overline{)84}$ → 2

A
Step 2
$3\overline{)84}$ → 2, 6

A
Step 3
$3\overline{)84}$ → 2, 6, 2

A
Step 4
$3\overline{)84}$ → 2, 6, 24

A
Step 5
$3\overline{)84}$ → 28, 6, 24

A
Step 6
$3\overline{)84}$ → 28, 6, 24, 24

A
Step 7
$3\overline{)84}$ → 28, 6, 24, 24, 0

1. Jack had 84 tomato plants for his garden. He planted them in 3 rows. Each row had the same number of plants. How many plants were in each row?

Example A above shows how to divide to get the answer.

Look at Step 1. Divide the 8 in 84 by 3. The next number smaller than 8 that you can divide exactly by 3 is ____. ____ ÷ 3 = 2. Write 2 above 8 in 84.

Look at Step 2. Now multiply the 3 by the 2 in the answer. 2 × 3 = ____
Write this 6 under the 8 in 84.
6 is smaller than ____. So the work should be correct.

Look at Step 3. 8 − 6 = ____
Write the 2 under the 6.

Look at Step 4. Bring down the 4 from 84 and write it after the 2.

Look at Step 5. Now divide the 24 by 3. You can divide 24 exactly by 3.
24 ÷ 3 = ____. Write 8 above the 4 in 84.

Look at Step 6. Multiply the 3 by the 8 in the answer.
8 × 3 = ____. Write 24 under 24.

Look at Step 7. Now subtract.
24 − 24 = ____. Write 0 under 24.

Jack planted ____ plants in each row.

2. Betty and Jane made 172 cookies to sell at the school play. The 2 girls divided the cookies between them equally. How many cookies did each girl have?

Example B shows how to divide to get the answer.

B
$2\overline{)172}$ → 86, 16, 12, 12

First divide the 17 in 172 by 2. 2 into ____ is 8.
Write 8 above ____.
Now multiply 2 by ____
Write ____ under ____.
Subtract: 17 − ____ = ____. Write ____ under ____. Bring down ____ and write it after ____.
Now divide ____ by ____.
Write ____ in the answer.
Multiply 2 by ____. Write ____ under ____.
Subtract ____ from ____.

When the remainder is 0, you do not need to write the 0.

Each girl had ____ cookies.

3. Room 3 had 70 bulletins about the school play. Each child took 2 bulletins to give away. How many took bulletins?

Divide ____ by ____ to get the answer.

Find the answer. Do your work in Box C.

C

Copy the six self-help examples below without the answers or the work. Cover the examples so that you cannot see the work. Then divide. Correct any mistakes that you make.

D
$$2\overline{)94}\quad 47,\ 8,\ 14,\ 14$$

E
$$3\overline{)57}\quad 19,\ 3,\ 27,\ 27$$

F
$$2\overline{)110}\quad 55,\ 10,\ 10,\ 10$$

G
$$2\overline{)138}\quad 69,\ 12,\ 18,\ 18$$

H
$$3\overline{)204}\quad 68,\ 18,\ 24,\ 24$$

I
$$3\overline{)168}\quad 56,\ 15,\ 18,\ 18$$

Now divide in the examples below.

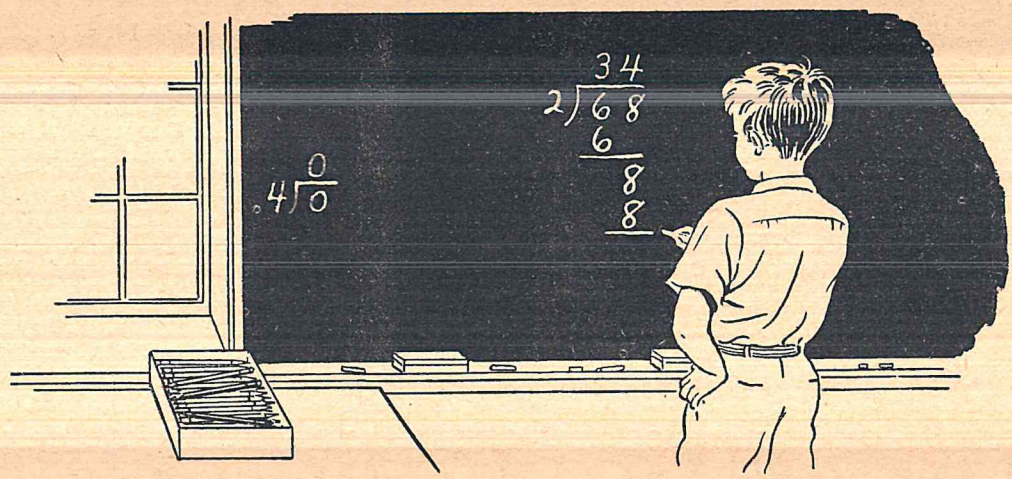
1. $3\overline{)78}$ 26, 6, 18, 18 $\quad 2\overline{)72}$ 36, 6, 12, 12 $\quad 2\overline{)54}$ 27, 4, 14, 14 $\quad 3\overline{)201}$ 67, 18, 21, 21 $\quad 3\overline{)42}$ 14, 3, 12, 12 $\quad 3\overline{)252}$ 84, 24, 12, 12 $\quad 2\overline{)136}$ 68, 12, 16, 16

2. $2\overline{)38}$ 19, 2, 18, 18 $\quad 3\overline{)54}$ 18, 3, 24, 24 $\quad 3\overline{)237}$ 79, 21, 27, 27 $\quad 2\overline{)114}$ 57, 10, 14, 14 $\quad 3\overline{)81}$ 27, 6, 21, 21 $\quad 2\overline{)138}$ 69, 12, 18, 18 $\quad 3\overline{)192}$ 64, 18, 12, 12

3. $3\overline{)45}$ 15, 3, 15, 15 $\quad 3\overline{)75}$ 25, 6, 15, 15 $\quad 2\overline{)156}$ 78, 14, 16, 16 $\quad 3\overline{)261}$ 87, 24, 21, 21 $\quad 2\overline{)50}$ 25, 4, 10, 10 $\quad 3\overline{)105}$ 35, 9, 15, 15 $\quad 3\overline{)147}$ 49, 12, 27, 27

Find the answers for the following.

4. $18 \div 9 = 2$
5. $17 - 9 = 8$
6. $9 + 9 = 18$
7. $3 \times 9 = 27$
8. $18 \div 6 = 3$
9. $10 - 6 = 4$
10. $24 \div 8 = 3$
11. $7 + 6 = 13$
12. $16 - 8 = 8$
13. $3 \times 7 = 21$
14. $7 + 4 = 11$
15. $12 - 4 = 8$
16. $6 \times 3 = 18$
17. $10 \div 5 = 2$
18. $9 \times 2 = 18$



Miss Brown gave Bobby a box with 68 pencils in it. She told him to give $\frac{1}{2}$ of them to Room 4. How many pencils should he have given to Room 4?

Look at the picture. Bobby is dividing 68 by 2 to find $\frac{1}{2}$ of 68.

He first divided ___ by 2.

He wrote ___ in the answer over the ___ in 68. He multiplied 2 by ___ and wrote ___ under 6.

When he subtracted, he got 0. So he did not write anything under the line.

Next he brought down ___.

He divided ___ by 2 and wrote ___.

When he multiplied, he got ___.

The answer is ___ pencils.

Find $\frac{1}{3}$ of 129. Do your work in Box A.

You should divide 129 by ___.

The first step is to divide ___ by 3.

After you bring down the ___, you divide ___ by 3.

A

Use Box B to check the work you did in Box A.

Multiply the answer, 43, by 3, the number that you divided by. The answer should be the same as the number divided, or 129.

B

Copy the examples below without the work. Divide without looking at the work. Correct any mistakes you make.

C
$$2\overline{)28}\quad 14,\ 2,\ 8,\ 8$$

D
$$3\overline{)156}\quad 52,\ 15,\ 6,\ 6$$

E
$$3\overline{)243}\quad 81,\ 24,\ 3,\ 3$$

F
$$2\overline{)124}\quad 62,\ 12,\ 4,\ 4$$

G
$$2\overline{)106}\quad 53,\ 10,\ 6,\ 6$$

H
$$3\overline{)219}\quad 73,\ 21,\ 9,\ 9$$

Divide in each example below. Check your work by multiplying the answer by the number you divided by. Do your checking at the right of each example.

1. $2\overline{)186}$ $2\overline{)82}$ $3\overline{)126}$ $3\overline{)183}$

2. $3\overline{)204}$ $2\overline{)144}$ $2\overline{)190}$ $3\overline{)96}$

In the picture on page 120, Betty has divided 0 by 4. Her answer is 0. If you have no apples and divided them into 4 equal groups, you would have no apples in each group.

$0 \div 4 = 0$

When you divide 0 by a number, the answer is 0.

Write the answer for each example below.

3. $9\overline{)0}$ $6\overline{)0}$ $8\overline{)16}$ $7\overline{)0}$ $7\overline{)14}$ $8\overline{)0}$ $2\overline{)0}$ $3\overline{)0}$

Divide in each example below. Check your work.

4. $9\overline{)270}$ $3\overline{)177}$ $2\overline{)100}$ $4\overline{)80}$

5. $2\overline{)130}$ $7\overline{)210}$ $3\overline{)282}$ $2\overline{)160}$

6. $4\overline{)120}$ $2\overline{)194}$ $3\overline{)192}$ $7\overline{)140}$

1. Joe, Bobby, and Tom had a garden together. In their garden they planted 36 tomato plants. Each boy had the same number of plants. How many tomato plants did each boy have?

The answer is _____ tomato plants.

2. The three boys each planted 56 beans. How many did all 3 boys plant?

The answer is _____ beans.

3. Of the 56 beans that Joe planted only 48 came up. How many did not come up?

The answer is _____ beans.

4. Joe planted 24 peanuts, Bobby planted 36 peanuts, and Tom planted 48 peanuts. How many peanuts did the three boys plant altogether?

The answer is _____ peanuts.

5. Bobby gave Betty $\frac{1}{2}$ of his 12 pumpkin seeds. How many did he give Betty?

The answer is _____ pumpkin seeds.

6. One month Joe had 160 tomatoes from his plants, Bobby had 168 tomatoes from his plants, and Tom had 165 from his plants. How many tomatoes in all did the boys have that month?

The answer is _____ tomatoes.

7. From his apple tree Dick got 186 apples one day. He sold $\frac{1}{2}$ of these apples to Mr. March and $\frac{1}{3}$ of them to Mr. White. How many apples did he sell to Mr. March? How many apples did he sell to Mr. White?

The answer for the first question is ___ apples.

The answer for the second question is ___ apples.

8. Joe thought he would get 3 beans a day from each of his 48 bean plants. How many beans a day did Joe think he would get from all of his plants?

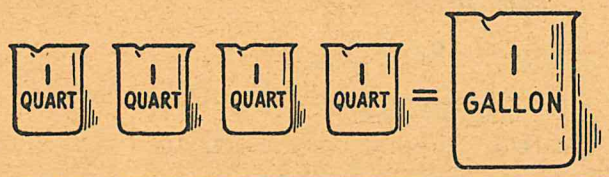
The answer is ___ beans.

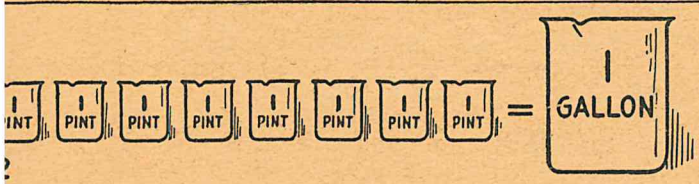
Divide in each example below.

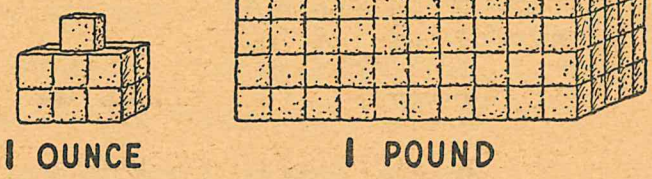
9. $4\overline{)12}$ $3\overline{)0}$ $2\overline{)18}$ $5\overline{)15}$ $9\overline{)27}$ $5\overline{)0}$ $3\overline{)9}$ $6\overline{)12}$

10. $3\overline{)17}$ $2\overline{)11}$ $2\overline{)19}$ $3\overline{)29}$ $3\overline{)13}$ $3\overline{)20}$ $2\overline{)9}$ $3\overline{)11}$

11. $2\overline{)174}$ $3\overline{)279}$ $3\overline{)105}$ $2\overline{)96}$ $3\overline{)291}$ $2\overline{)180}$







Picture 1 shows that there are ___ quarts in one gallon.

Picture 2 shows that there are ___ pints in one gallon.

Be sure that you know these measures:

2 cupfuls = 1 pint
2 pints = 1 quart
4 quarts = 1 gallon
8 pints = 1 gallon

Picture 3 shows some lumps of sugar in two piles. The small pile has 1 ounce of sugar in it. The large pile has 1 pound of sugar in it.

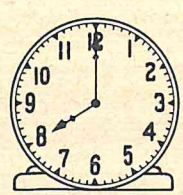
It would take nearly 16 of the small piles to make 1 pound of sugar.

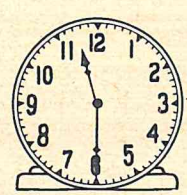
16 ounces = 1 pound

1. 3 gallons = ___ quarts
2. 2 gallons = ___ pints
3. 1 gallon = ___ cupfuls
4. 24 pints = ___ gallons
5. 3 pounds = ___ ounces
6. Joe weighs 89 _____.
7. Tom is 51 _____ tall.
8. This workbook is 11 _____ long.
9. Betty gave each of 8 friends 1 _____ of milk out of a gallon bottle.
10. Which is more, 2 pounds of sugar or 33 ounces of sugar? _____
11. Jane has been in school 3 years and is exactly 9 _____ old.
12. Jane is _____ months old.
13. Henry says he can walk one mile in 20 _____.
14. You go to school 5 _____ each _____.
15. You go to school about _____ days in 30 weeks.
16. June's little brother is 3 years old. He is about _____ weeks old.
17. Tom got 2 pounds of green beans each day in June from his garden. He got ___ pounds of beans in June.
18. The minute hand goes around the clock ___ times in one day.
19. The hour hand goes around the clock ___ times in one day.
20. This workbook weighs about 10 _____.
21. In the first four months of this year there are ___ days. Write the numbers and add them in Box A.

A

1. Write three hundred two in figures. 302
2. Write eight hundred sixty-nine in figures. 869
3. In counting by tens you would say 100 after 90.
4. In counting by twos you would say 22 after 20.
5. Write nine cents in figures in two ways. $.09 and 9¢
6. Write six dollars and seven cents in figures. $6.07
7. The time by Clock A below is 8 o'clock.
8. The time by Clock B is Half past 11.
9. The time by Clock C is 10 minutes after 6.
10. The time by Clock D is 20 minutes of 5.
11. One dollar equals 20 nickels or 10 dimes.
12. One dollar equals 4 quarters or 2 half dollars.
13. One dollar equals 1 half dollar, 1 quarter, and 25 cents.
14. Picture H below shows $1.00 dollar and 6¢ cents.
15. Joe bought a book for 32¢. The store man gave him his change and counted as follows: 33¢, 34¢, 35¢, 40¢, 50¢, 75¢, $1. He gave Joe 3 pennies, 1 nickel, 1 dime, 2 quarters.
16. Joe gave the store man one $1.00.
17. Circle G below is one third black.
18. Circle E is one half black.
19. Circle F is one fourth black.
20. $\frac{1}{2}$ of 180 pages is 90 pages.
21. $\frac{1}{3}$ of 180 pages is 60 pages.
22. 1 gallon equals 4 quarts or 8 pints.
23. 1 quart equals 2 pints or 4 cupfuls.
24. 1 pound equals 16 ounces.
25. 1 year equals 12 months or 52 weeks or 365 days.


A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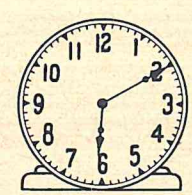
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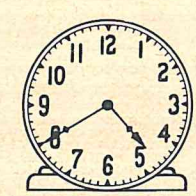
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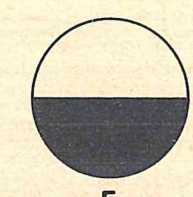
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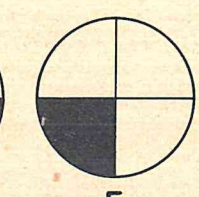
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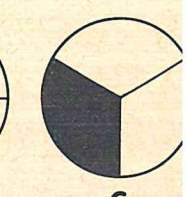

G

H

Add in each example below.

	A	B	C	D	E	F	G	H	I	J
1.	5 8 13	0 9 9	9 4 13	7 5 12	3 8 11	5 9 14	2 8 10	5 7 12	6 6 12	2 9 11
2.	9 5 14	8 7 15	9 3 11	1 2 3	7 6 13	0 0 0	6 5 11	7 4 11	7 7 14	9 2 11
3.	8 6 14	8 0 8	5 6 11	4 8 12	9 6 15	4 7 11	8 8 16	7 9 16	9 9 18	8 5 13
4.	6 0 6	8 4 12	6 8 14	8 3 11	0 8 8	1 6 7	9 8 17	1 5 6	3 7 10	9 7 16
5.	6 9 15	3 9 11	2 0 2	6 7 13	9 1 10	3 2 5	7 8 15	0 6 6	4 9 13	8 9 17

Subtract in each example below.

	A	B	C	D	E	F	G	H	I	J
6.	18 9 9	3 0 3	12 5 7	9 3 6	17 8 9	10 4 6	14 6 8	11 9 3	16 7 9	13 4 9
7.	11 5 6	12 3 9	0 0 0	17 9 8	15 7 8	11 2 9	6 1 5	10 2 8	16 8 8	6 6 0
8.	14 7 7	16 9 7	7 0 7	13 5 8	12 4 8	15 8 7	11 7 4	13 6 7	10 9 1	11 3 8
9.	14 8 6	4 4 0	12 6 6	11 8 3	13 7 6	14 5 9	11 6 5	15 9 6	10 1 9	13 9 4
10.	14 9 5	10 5 5	11 4 7	15 6 9	12 8 4	13 8 5	8 7 1	9 2 7	12 9 4	12 7 5

Multiply in each example below.

	A	B	C	D	E	F	G	H	I	J
1.	4 3	7 1	1 3	0 9	7 3	1 2	3 2	2 6	1 4	8 2
2.	3 8	2 4	0 8	2 9	9 1	0 1	2 5	2 3	2 8	9 3
3.	6 2	3 3	2 2	1 9	1 6	3 1	5 2	6 3	0 2	2 7
4.	0 6	5 3	0 3	3 6	2 1	0 7	5 1	3 9	1 8	9 2
5.	4 2	3 7	0 5	7 2	0 4	3 5	8 3	1 7	1 5	3 4

Divide in each example below.

	A	B	C	D	E	F	G
6.	$2\overline{)12}$	$3\overline{)6}$	$5\overline{)10}$	$4\overline{)12}$	$9\overline{)27}$	$3\overline{)15}$	$2\overline{)10}$
7.	$4\overline{)0}$	$3\overline{)18}$	$9\overline{)0}$	$2\overline{)2}$	$6\overline{)12}$	$6\overline{)0}$	$7\overline{)21}$
8.	$2\overline{)18}$	$2\overline{)8}$	$3\overline{)27}$	$7\overline{)0}$	$2\overline{)16}$	$8\overline{)24}$	$3\overline{)12}$
9.	$6\overline{)18}$	$2\overline{)6}$	$4\overline{)8}$	$7\overline{)14}$	$3\overline{)0}$	$2\overline{)4}$	$5\overline{)15}$
10.	$3\overline{)24}$	$8\overline{)16}$	$3\overline{)9}$	$2\overline{)14}$	$8\overline{)0}$	$9\overline{)18}$	$3\overline{)21}$

(3)

Add in each example below.

	A	B	C	D	E	F	G
1.	8 8 5 21	6 9 7 22	90 11 43 54	97 7 18 122	18 99 96 213	59 65 98 223✓	34 67 99 200
2.	104 39 208 351	227 106 637 1070✓	160 161 193 514	18 435 308 761	170 364 182 716	198 250 380 828	186 61 480 727
3.	361 85 499 945	20 607 98 725	80 172 178 430	308 206 399 913	88 458 198 744	500 97 306 903	358 295 208 861
4.	$.08 .15 .56 .69✓	$.77 .53 .70 $2.00	$1.98 .96 6.28 $9.22	$ .87 .97 2.27 $4.11	$2.11 1.35 1.06 $4.52	$1.04 2.06 3.90 $7.00	$1.73 .87 4.69 $7.29

(6)

Subtract in each example below.

	A	B	C	D	E	F	G
5.	79 27 52	948 906 042	147 26 121	63 19 47	392 88 304	580 528 052	519 366 153
6.	911 418 403✓	103 57 46	206 60 146	516 176 340	807 778 027✓	384 167 217	332 251 081
7.	756 447 309	135 56 79	214 48 76✓	512 189 343✓	459 371 088	634 505 129	834 639 195
8.	425 278 147	834 176 658	135 99 36	420 162 258	943 448 495	541 69 473✓	621 448 173
9.	$.23 .18 .05	$1.41 .95 .46	$3.12 .95 $0.17✓	$8.71 3.83 4.88	$6.02 1.33 4.69	$6.01 5.92 0.09	$9.02 6.69 $2.33

Multiply in each example below.

	A	B	C	D	E	F	G
1.	23 × 2 = 46	21 × 5 = 105	231 × 3 = 693	61 × 2 = 122	80 × 3 = 240	102 × 2 = 204	31 × 8 = 248
2.	64 × 2 = 128	37 × 3 = 111	32 × 9 = 288	32 × 5 = 160	86 × 2 = 172	30 × 8 = 240	31 × 4 = 214
3.	105 × 3 = 315	129 × 2 = 258	121 × 8 = 968	102 × 6 = 612	480 × 2 = 960	100 × 9 = 900	13 × 6 = 78
4.	132 × 6 = 792	197 × 2 = 394	204 × 3 = 612	121 × 6 = 726	169 × 3 = 507	278 × 3 = 834	23 × 5 = 115
5.	103 × 8 = 824	102 × 7 = 714	103 × 9 = 927	130 × 5 = 655	378 × 2 = 756	456 × 2 = 912	45 × 3 = 135

Divide in each example below.

	A	B	C	D	E	F
6.	3)10 → 3 r 1 (9, 1)	3)23 → 7 r 2 (21, 2)	2)5 → 2 r 1 (4, 1)	2)19 → 9 r 1 (18, 1)	3)20 → 6 r 2 (18, 2)	3)8 → 2 r 2 (6, 2)
7.	2)34 → 12 r 1 (24, 1)	3)30 → 10 (30)	4)80 → 20 (80)	2)68 → 34 (6, 8, 8)	2)74 → 37 (6, 14, 14)	2)52 → 26 (4, 12, 12)
8.	5)150 → 30 (15, 0, 0)	3)123 → 41 (12, 3, 3)	6)180 → 30 (18, 0, 0)	2)166 → 83 (16, 6, 6)	2)192 → 96 (18, 12, 12)	3)294 → 98 (27, 24, 24)
9.	3)201 → 67 (18, 21, 21)	8)240 → 30 (24, 0, 0)	2)46 → 23 (4, 6, 6)	2)146 → 73 (14, 6, 6)	3)117 → 39 (9, 27, 27)	3)153 → 51 (15, 3, 3)

The only additional vocabulary included in this workbook is shown in the following list:

Page 4 *arrow* Page 88 *passed*
written Page 120 *given*
Page 31 *December*

The following words are used prior to the point at which they are introduced in *Study Arithmetics, Book 3*. The number in the parenthesis indicates the page in the textbook on which the word is introduced.

Page 4 *cross* (51) Page 36 *remember* (130)
Page 24 *move* (176) Page 38 *peg* (250)
Page 30 *circles* (232)

Special Notes

End-of-Block Tests. These are review tests of basic facts and computation and are found on pages 32, 44, 53, 64, 83, 91 (two rows of examples at top of page), 106, and 122 (three rows of examples at bottom of page). Each test includes the new skills taught since the preceding test. Weaknesses revealed by these tests should be removed before proceeding to new work.

Page 4. Exercises like those at the bottom of the page develop the skill of detecting numbers out of order. Additional exercises like these can be put on the blackboard. If necessary, use the blackboard to show the children how to make the arrows.

Page 7. Encourage discrimination in identifying the pictures of coins. Examination of the details on real coins will help in this. Be sure the children understand that all blanks shown in this workbook are to be written in.

Pages 11-12. The addition process is introduced on these pages in connection with three basic facts.

Pages 13-14. The subtraction process is introduced on these pages in connection with the three basic facts that correspond to the ones in addition taught on pages 11-12.

Page 16. The workbook pictorializes each basic fact and gives the child the experience of relating the pictured fact with the abstract example in boxed form. Several of the facts are used in problems related to the pictures. As a supplementary exercise the teacher can have the pupils make problems for the other pictures. The procedures learned will be used on many subsequent pages.

Page 19. Too much stress should not be placed on the puristic use of *fewer* as opposed to *less*. The teacher should use *fewer* with separable items (*fewer* lumps of sugar, *fewer* pennies, *fewer* minutes) as opposed to *less* with inseparable items (*less* sugar, *less* money, *less* time).

Page 31. Be sure to use a calendar showing all twelve months and to give practice in finding specified days and facts from the calendar.

Page 34. This is the first group of basic facts not taught in *Number Stories, Book 2*. The remaining basic facts in addition and subtraction will be taught in groups of eight—two addition facts, their reverses, and the corresponding subtraction facts.

Pages 36-37. See that the children use the three pictures to help concrete the first example. Notice that Example A is accompanied by a full explanation and that Example B leads the children through the work by questions. Be sure they write all of the answers on the lines. Boxes C, D, and E are provided to encourage the skill of self-help.

Pages 46-47. These pages utilize the teaching method for which preparation was made on pages 36-37. Be sure that the child reads with comprehension the directions for working the example in the picture. Be sure that he writes all the required numbers on the lines provided in connection with Example A.

Note that the child gets practice in copying examples when he does the self-help examples. Writing numbers for computation is a very important arithmetic skill and must be practiced.

Page 52. Be sure that the children use the three pictures to help them understand the steps in subtraction. Children should be required to correct the mistakes they may make in the self-help examples.

Pages 92-93. These pages introduce the multiplication process and concrete the basic facts with 2 as multiplier. Supplement these pages with exercises using objects to concrete the nine basic facts. A lack of understanding of the skills involved will be shown by certain types of errors.

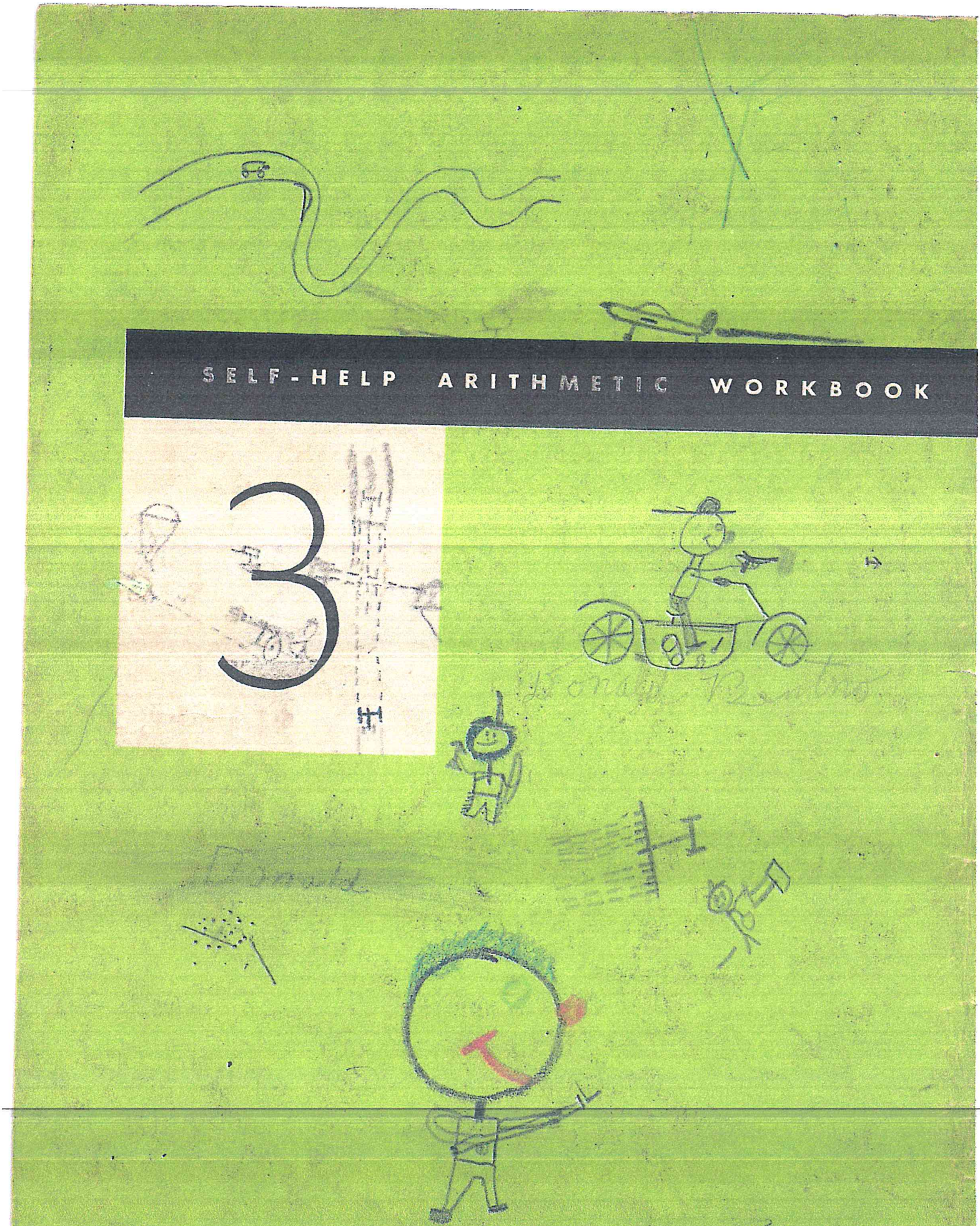
Pages 94-95. Notice that all the basic facts with 2, including reverses, are pictured. The pictures are arranged to contrast the meanings of the facts with 2 as multiplier and 2 as multiplicand. The same procedures are used here that were used for the addition and subtraction facts.

Pages 96-97. The picture on page 96 concretes and relates the basic facts with 3 as multiplier and with 3 as multiplicand. Encourage the children to count the objects in a picture, the number in each row, and the number of rows. Show them how to form the conclusion that 4 threes are 12, 3 fours are 12, etc.

Pages 108-109. These pages introduce the division process and concrete the basic facts with 2 as divisor.

Page 110. This page concretes the basic division facts with 2 as quotient. Be sure that the children mark off the objects in the pictures into groups as directed.

Pages 124-128. These pages are a review of all skills and topics taught in this workbook.



SELF-HELP ARITHMETIC WORKBOOK

3

$$
\begin{array}{r}
22 \\
3\overline{)78} \\
6 \\
\hline
18 \\
18 \\
\hline
\end{array}
\qquad
\begin{array}{r}
36 \\
2\overline{)72} \\
6 \\
\hline
12 \\
12 \\
\hline
\end{array}
\qquad
\begin{array}{r}
27 \\
2\overline{)54} \\
4 \\
\hline
14 \\
14 \\
\hline
\end{array}
\qquad
\begin{array}{r}
6 \\
3\overline{)201} \\
18 \\
\hline
20 \\
20 \\
\hline
\end{array}
$$

$$
\begin{array}{r}
14 \\
3\overline{)42} \\
3 \\
\hline
12 \\
12 \\
\hline
\end{array}
\qquad
\begin{array}{r}
84 \\
3\overline{)252} \\
24 \\
\hline
12 \\
12 \\
\hline
\end{array}
\qquad
\begin{array}{r}
68 \\
2\overline{)136} \\
12 \\
\hline
16 \\
16 \\
\hline
\end{array}
$$